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POSITIVE COMPLIANCE PROGRAMS : THEIR POTENTIAL AS INSTRUMENTS FOR REGULATORY REFORM

Ellen Baar
With the Assistance of
Theodora Carroll Foster and Barbara Erskine

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EXECUTIVE SUMMARY

Industries or companies engaged in activities which result in actual or potential harm to workers, individual third parties, the general public or the environment are being increasingly subjected to regulation. Unfortunately, existing regulation, whether imposed by rule of law, statutes or other government authority, is frequently ineffective, inefficient, not enforced or simply ignored.

The present report endeavours to map out strategies for regulatory reform through the alternative of positive compliance programs. Based mainly on observations obtained from studies of programs in place in the United Kingdom, Australia and the United States, *Positive Compliance Programs* seek to provide Canadian regulators with a theoretical framework, and some practical tools, for constructing a more effective system for regulating hazardous activities in an increasingly fragile political, economic and ecologically aware environment.

This report provides an in-depth study of the nature and goals of regulation and positive compliance, including discussions of the theory of control and its balance, the role played by regulators under various programs, approaches taken in different regulatory sectors -- such as occupational health and safety, consumer protection or environment -- and the contingencies affecting the design of regulatory strategies (Chapters 2 to 5).

The twin goals of the positive compliance approach are to prevent potential harm and to compensate for or reduce harm already extant. Chapter 2 lays the theoretical groundwork for the report by addressing these goals and examining various contingencies that may affect their achievement. It sets out the necessary balance between excessive control, where enforcement takes precedence over technical and economic feasibility, and undercontrol, which causes ineffective harm control measures, lax monitoring and noncompliance. Finally, Chapter 2 gives a preliminary look at various strategies in place in different jurisdictions.

Chapter 3 concentrates on regulatory approaches appropriate to particular sectors. Occupational health and safety appears particularly well suited to accountable self regulation and conditional approval (i.e. licensing) processes, and these are discussed in detail. Mitigation, and the use of its costs as an incentive to risk creators, is explored in the context of consumer protection and human rights regulation. The demands and pitfalls of balancing private and public -- even global -- interests in environmental regulation make up the remainder of the chapter.

The role of the regulator in various phases of regulation as well as in different programs is discussed in Chapter 4. The analysis ranges from the regulator's tasks as

risk assessor and systems designer to those of monitoring and enforcing compliance and the difficult burden of managing the interdependence of risk creators and risk bearers. Detailed references to the various regulatory instruments available along the way accompany the discussion throughout.

Chapter 5 examines the contingencies that may affect the choice of strategies for regulatory design, such as the responsiveness of the regulated organizations, their size and structure, the severity of the risks encountered, the availability of control technologies, and the degree of involvement of risk bearers. It also explores external influences to which regulatory agencies themselves are subject, in particular the control exerted by the legislative and executive branches of government, the courts, private interest groups and the public.

The theoretical discourse of the early chapters is complemented with practical examples gleaned from a study of British, American and Australian positive compliance programs. The material for the following chapters is largely based on interviews conducted by the author, interview material from other researchers, and a series of program profiles contained in the Inventory Report.

Chapter 6 looks at the various philosophies and applications dominant in the different jurisdictions, and examines their respective strengths and weaknesses. It concludes with a convenient summary of the most effective, efficient and successful techniques tried by foreign regulators.

Chapters 7 and 8 explore in greater detail a number of different programs, presenting case studies, first-hand observations of participants and evaluations of their effectiveness. Chapter 7 focuses in particular detail on programs using the accountable self regulation approach, while Chapter 8 examines the concept of delegating regulatory responsibility through conditional approval processes.

In Chapter 9, the knowledge gained from both the theoretical and practical analyses is used to explore the difficulties encountered in balancing regulatory objectives and public reaction to over- and undercontrol, and to look at appropriate choices of regulatory instruments. A brief look at the legal concept of joint and several liability, favoured by some as the answer to regulatory problems particularly in the area of environmental control, is appended.

The concluding remarks of Chapter 10 are followed by a series of recommendations for the consideration of Canadian regulators (Chapter 11). This list, while by no means definitive, is the distillate of the author's observations on the experiences of existing positive compliance programs, and should form a useful starting point for practitioners faced with the monumental task of regulatory reform.

For the reader's convenience, and in order to facilitate dialogue between Canadian regulators and their colleagues in jurisdictions which have already experimented with positive compliance programs, a list of contacts is contained in Appendix IV.

1.0 INTRODUCTION

1.1 A Definition of Positive Compliance

In present day society, an increasing number of industries and companies engage in activities with a potentially devastating impact on their employees, individual third parties, the public at large, or the environment. Such activities are generally subject to regulation by law, statute, or other government authority - regulation which frequently suffers from ineffectiveness, inefficiency, lack of consistent enforcement, or is simply ignored by the risk creators it seeks to control.

Positive compliance programs are of interest to regulators because they endeavour to find the right balance between persuasion and punishment.[1] They seek to achieve a balance of control, advantaging neither risk bearers nor risk creators at the other's expense in the design and implementation of risk management strategies; in addition, positive compliance programs avoid both the kind of unreasonable regulation which advocates of deregulation have sought to eliminate[2] and the undercontrol which has traditionally plagued Canadian regulatory regimes, and reduce litigiousness by emphasizing procedural and substantive fairness.

Positive compliance programs use incentives and the auditing of behaviour to generate within risk creating companies or industries an ongoing investment in their internal control systems. These programs intend to promote improvement in the prevention, abatement, and reduction of the probability that harm will recur. Because their emphasis is on continually improving the design of internal control systems, positive compliance programs differ fundamentally from regulatory approaches which seek to generate compliance by defining the minimal socially acceptable standard of preventive behaviour.

This study examines the use of positive compliance programs in Great Britain, the United States, and Australia, their successes and failures, with a view to providing Canadian legislators and regulators with practical information and a theoretical basis on which to build a strategy for regulatory reform appropriate to Canadian circumstances. Accordingly, this project does not look at the current reality of regulation in Canada.

The report addresses the contingencies or factors which need to be considered if regulatory effectiveness is to be increased. Specifically, it examines the nature and degree of external control which parliament, ministers, the judiciary and crown law officers have over regulatory agencies, as well as the magnitude of risk in a given industry or activity. The availability of expertise and the ability of a given organization to custom design strategies for reducing harm also prove important in determining what regulators should do and how they should do it.

While these contingencies affect the roles regulators should play, they also influence their ability to delegate certain regulatory responsibilities to private parties, so that the public and the private sector either share the responsibilities or the private sector can assume some traditionally held by the public sector. Stated another way, the contingencies also affect the appropriate public/private mix, another important aspect covered by this report.

1.2 Method and Approach

1.2.1 The General Approach

To a large extent, this study relies on secondary analysis of existing data sources. As the acknowledgements indicate, access was granted to the interview materials and preliminary reports developed by the Oxford Centre for Socio-Legal Research in England, by Peter Grabosky and John Braithwaite in Australia and by Eugene Bardach and Robert Kagan in the United States. These materials were supplemented with telephone interviews with regulators and parties subject to regulation.

The Inventory contains a series of regulatory profiles compiled from the literature, dating back to 1970. Excerpts from statutes have been included as well to provide a better understanding of how the three countries differ in the way they define legal obligations.

The analysis of the regulatory profiles, conducted in the present volume, searches for differences among the three countries in their approach to regulatory roles, the incentives employed to achieve regulatory goals, the role of public participation, the emphasis on granting variances, and the custom design of performance standards. As well, similarities and differences among environmental, occupational health and safety and consumer protection and human rights regulation are considered.

In addition, the report examines numerous specific case studies, selected by the Department of Justice Canada from the profiles contained in the preliminary inventory. The cases examine programs and approaches rather than single companies or a particular industry. The analysis focuses on topics such as the delegation of regulatory authority, the instruments available for creating legally binding undertakings to reduce harm, and the use of authorization and auditing to provide accountable self-regulation, an approach seeking to increase, through custom design, the appropriateness of standards of due diligence. Whenever possible, interviews were conducted with those administering these programs and parties affected by them in order to obtain thorough evaluations of program strengths and weaknesses.

In order to assist the reader with specific terminology, which at times might appear foreign or, if apparently commonplace, be subject to unfamiliar nuances, a glossary is appended at the end of this volume.

1.2.2 The Case Studies

A total of twelve case studies have been included in the present analysis, and are briefly summarized below:

1. **The California Cooperative Compliance Program**

   and

2. **The Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program, Star level**

Both these programs address the question of how to regulate large, high-risk companies with excellent compliance histories. The analysis shows what roles regulators play when the company has already invested in acquiring the knowledge, expertise and technologies needed to control harm and what incentives can be used to promote ongoing improvement in the control and mitigation of harm.

3. **OSHA's Consultation Exemption Program**

The program is designed for small, high risk companies. It considers how regulatory roles differ when firms are small rather than large. The objective is to improve the quality of the internal control systems of small firms so that they are better able to reduce harm; the case study discusses how diagnosis and design contribute to this goal.

4. **The British Health and Safety Executive's Self-Regulation of Occupational Health and Safety by British Employers and Workers.**

The Robens Commission argued that safety could be achieved if employers assumed responsibility for developing definitions of due diligence and educational programs promoting greater safety. Under this approach, employers and employees jointly assume responsibility for monitoring and enforcement, with regulators serving as consultants to employers. This study explores the means and effectiveness of self-regulation.

5. The American Superfund Legislation

This legislation employs joint and several liability on toxic waste depositors, obliging them to mitigate the harm generated by toxic waste sites. The Superfund holds risk creators responsible for designing, implementing and financing remedial action or, if they so choose, permits delegation of the responsibility for design and implementation to the public sector; the risk creators retain financial responsibility. Any negotiated settlement agreements are subject to public scrutiny and authorization by the Environmental Protection Agency (EPA) being submitted for judicial approval, which makes them legally binding. This study is interested in the division of responsibility between risk creators and government, and the role mediation plays in achieving settlements.

6. Mediation of Disputes Between Traders and Consumers

Regulators frequently favour alternative dispute resolution techniques. However, this approach emphasizes a case by case approach and does not encourage regulatory strategies which address the patterning of harm, in this case the causes of recurring conflicts between traders and their clientele. The case study emphasizes the distinction between compensating victims and mitigating harm.

7. The Hallal Certification System

The Hallal certification system delegates to governments wishing to expand export opportunities the responsibility to ensure that producers in their country comply with practices and standards required by the foreign end users. The importing nation tests the product and audits compliance, in this case meat exported by Australia. Both the importer and the exporter can employ delisting to achieve compliance; establishment and cancellation of privileges are the concepts central to this case study.

8. The Australian Mining Industry

Based on the assumption that standardized definitions of due diligence would create rules inappropriate for Australia's many and varied mine sites, this program allows each mine to write its own rules; these are authorized and audited by state mining departments. The registered mine manager is responsible for ensuring safe operation; if harm occurs, he can lose the certificate of competency enabling him to fill such a job. Management and employees jointly monitor compliance while regulators regularly audit their performance and provide advice on improving harm reduction strategies. The study is placed in the context of assessing the effectiveness of accountable self-regulation.

9. Franchise Agreements

In this particularly Australian approach, agreements are negotiated between a potentially risk creating company and the government. The agreement and any amendment are submitted to Parliament for debate and approval. The performance contract negotiated becomes a legally binding document specifying the obligations each party is expected to meet. Public participation in the process provides the focus for this case study.

10. Commissioners of Inquiry

Another discussion centred on preventing the agitation of risk bearers through public involvement is that of the Commissioners of Inquiry system, employed both by the British and the Australians to resolve controversial planning issues. Commissioners recommend to the Minister concerned a set of conditions which might be imposed on a proponent to reduce the potential for harm on-site and to prepare for the worst case by adopting contingency measures. Impact monitoring, emergency response planning and provision of financial security for environmental liability may all be involved.[3] The objective is to reduce a community's opposition to a high-risk facility in their midst by ensuring that effects monitoring takes place and that the proponent has the means and the will to mitigate harm should it occur.

11. The Australian Trade Practices Commission

The authorization process employed by the Australian Trade Practices Commission attempts to identify the worst case scenarios of affected risk bearers should an exemption from regulatory obligations be granted "in the public interest". The commission can refuse authorization or require contingency measures as a condition. In the absence of effects monitoring by the Commission, however, authorization will only be revoked if demanded by those affected; thus the obligations are not binding. Nevertheless the process has proved useful in defining the nature of public opposition and is an example of conflict avoidance.

12. Tradeable Air Pollution Permits

This much maligned system seeks to reduce the costs for risk creators of compliance with air quality regulations. Here, performance standards replace design standards and tradeable rights are created which allow risk creators operating at several sites to spread total emission figures selectively among plants, or permit a risk creator to sell credits achieved by exceeding minimum standards to others. This approach has resulted in substantial private gains and public losses. In addition, the incidence of harm is more inequitably distributed. This case demonstrates the dangers of imbalance associated with placing too much significance on reducing the risk creator's costs while paying too little attention to those paid by specific risk bearers and the public in general.

The case studies argue for using self regulation to supplement, but not replace, the efforts of regulators. Delegating increased responsibility to the private sector is not without cost, because effective auditing which is needed to protect the public interest is both expensive and intrusive, as are the practices required to ensure procedural and substantive fairness.

The case studies further clarify the role of public participation in the regulatory process and the importance of monitoring both harm and the costs associated with harm reduction. Throughout, the analysis different approaches to developing binding obligations are assessed.

1.3 Towards a Positive Compliance Strategy for Canada

The danger associated with the concept of positive compliance is that it suggests that regulation will become more effective if regulators employ persuasion rather than punishment, a "British approach" rather than an "American approach". While the literature has recently stressed American emphasis on punishment and litigation and British use of persuasion and consultation,[4] the widest variety of approaches to achieving compliance, preventing and mitigating harm is still employed in the United States. It should also be noted that the British are less concerned than either the Americans or the Australians with achieving procedural and substantive fairness. In fact, the distinction between punishment and persuasion is less important than the speed, consistency and certainty of the use of incentives, and the willingness to select incentives that reflect both a company's compliance history and the magnitude of risk and harm created. Similarly, it is not the use of persuasion which reduces conflict and litigation, but attention to fairness.

Perhaps the most important aspect of positive compliance is its attention to the design of regulation and of the implementation process. Asking how both undercontrol and overcontrol can be avoided rather than focusing on reducing the short-term costs of regulation appears to be a more fruitful approach. The issue is not whether there should or should not be deregulation, but rather what changes in the relationships among the various participants in the regulatory process are required if harm is to be reduced more rapidly, more fairly and more effectively.

The objective of positive compliance is to restructure relationships, not to reduce short-term costs. By focusing too much attention on short-term rather than long-term costs, and too little on reducing harm in an equitable manner, a large portion of the current regulatory debate has proved counterproductive. A Canadian strategy should avoid declaring short-term cost savings tne measure of success, and should focus on fairness and harm reduction.

The recommendations contained in the final chapter of this report are based on the lessons learned from the American, British and Australian experience, and are designed to provide guidance for Canadian regulators whose task it is to implement a regulatory system that will prove both efficient and effective.

2.0 REGULATORY REFORM AND POSITIVE COMPLIANCE

2.1 Introduction: The Nature of Regulation

Corporations, organizations and individuals have traditionally managed their relationships with one another through private contracts. Regulation develops when society judges private contracts to be an inadequate means of managing complex interdependencies, namely the relationship between risk creators and risk bearers. There may be too many parties with diverse interests to negotiate contracts, or too many trade-offs impeding the definition of the parties' mutual obligations. Under such circumstances, the state supplements private contracts with public regulation, whereby public definitions of the obligations that parties have to each other are enforced through a combination of public and private actions.

The nature of the interdependencies of interested groups affects the development of governmental regulation. The more responsive risk creators are to the ways in which their actions affect others, whether by imposing costs and benefits on existing parties or on future generations, the less the need for regulation. Likewise, the more reliable in-house technologies and procedures for enforcing obligations are, in other words, the better the internal control system, the less government regulation is required. Consequently, when firms and individuals adopt "open system" assumptions and voluntarily and consistently limit the costs or harm their behaviour causes others, the need for government regulation declines and interdependence can be managed effectively through private contracts.

Private organizations, citizens, government and regulators thus form an interactive system. The organization of a firm's productive processes may harm or benefit those both within and outside the firm. As well, a company's output, the form and quality of its products, the manner in which products or services are marketed, and the flow of jobs and capital generated, may either harm or benefit those outside the organization because of the interdependence or linkages among companies, households and governments. Therefore, designing adequate remedies for harm should not only be a private responsibility but also a joint or public responsibility. Similarly, the costs of implementing designs for reducing existing, compensating for past, and preventing future harm, should be jointly borne by those causing harm, by its victims, and/or by society. Yet, little attention has been focused on what principles should be used to determine or govern the distribution of responsibilities among the respective parties.

The primary objectives of regulation can be stated simply. They are:

1) to prevent harm, and

2) to compensate for and reduce systematically the harm generated through past actions.

In accordance with these goals, the regulatory system and its members must commit themselves in advance to remedy harm if prevention proves inadequate. To encourage adherence to these goals, incentives must be provided on an ongoing basis to redesign production processes and to manage the control of harm effectively.

2.2 Regulatory Reform in Canada

2.2.1 The Need for Change

In recent years, there has been considerable dissatisfaction with the quantity and quality of regulation developed to prevent and mitigate harm. Critics argue that the governmental role in detecting and monitoring harm, compiling and analyzing data, defining minimal obligations which firms must meet, and limiting companies' options in their effort to ensure compliance with minimal standards, has become too great and too intrusive, and that the costs imposed by governmental control on the private sector are excessive. Regulatory reform which would reduce the role of government appears necessary.

2.2.2 The Government's Response

In response to the demand for regulatory reform, the Canadian government enunciated a series of principles to guide future federal regulation. These define regulation as appropriate only when markets are not sufficiently competitive, or when public protection is deemed inadequate, that is, when too much harm is being created. Regulators are enjoined to minimize government intrusiveness, and to choose methods of regulation which would increase international competitiveness, the efficiency of the marketplace, job creation, and the strength of the entrepreneurial spirit. Businesses of different size are not to be burdened disproportionately, and delays in regulatory decisionmaking are to be minimized. Sanctions and enforcement powers are to be proportionate and appropriate to the seriousness of a violation.

The present government appears committed to improving the quality of regulation by generating more extensive feedback from the public, government bodies and

Parliament in respect of regulatory proposals and actions. It seeks to improve coordination among governments and within its own departments, and to increase both substantive and procedural fairness. The government now recognizes that regulators should not negotiate performance standards unilaterally; when considering proposals for new regulation, it believes that the burden of proof should rest on those contending that more regulation is needed. Finally, the current government seeks consensus regarding both the severity of harm and appropriate approaches for reduction.

2.2.3 The Shortcomings of the New Principles

It should be noted that all these prescriptions assume that the problem with regulation lies in firms being disadvantaged by regulatory overcontrol. Little attention is given to the inadequacies of regulation as a protective device, to problems of undercontrol, and to the inadequacy of governmental audits supposed to ensure that obligations are met and that harm is reduced. Private sector objectives and the costs borne by the private sector are emphasized, while the effectiveness of regulation in promoting societal objectives and public sector costs are marginalized.

While the strategy of this government recognizes that penalties must reflect prevailing definitions of the social acceptability of various forms of harm. However, this emphasis on deterrence diverts attention from the need to reduce systematically the quantum and distribution of harm by developing penalties and incentives which will foster "voluntary compliance" with reasonable performance standards.

While specifying the priorities the government wants regulators to apply, and the trade-offs it expects regulators to make, these principles fail because they do not address the methodologies which might make possible greater reliance on private rather than public regulation. They do not ask how an open system's perspective and actions to limit voluntarily and consistently the costs of certain behaviour can be promoted, nor what regulatory instruments will foster these objectives and lead to change in the amount and type of public regulation used.

2.3 Positive Compliance: An Alternative Solution

2.3.1 Goals and Structure

Positive compliance is an approach to regulation which stresses conciliatory social control.[5] It is based on enforcing obligations recognized by firms and individuals as necessary to harmonious relations between them. Positive compliance uses monitoring of behaviour in order to improve harm prevention, by way of repairing relationships which have the potential for generating harm.[6] But it also includes remedying past harm which resulted because prevention was inadequate.

The goal of positive compliance is not compliance with minimal standards, but ongoing private sector investment and involvement which systematically reduce the quantum of harm. Enforcement, under this approach, involves a linear strategy, decisions which are graduated in character, and is a continuing process rather than a one time event.[7] Prosecution is employed only as a last resort, when all else fails.

Positive compliance is usually contrasted with penal control, which is based on prohibitions and punishment. Prohibitions proscribe acts for the good of oneself and/or others; failure to comply with a prohibition is met with a noncompliance penalty designed as a moral statement which signifies society's displeasure with irresponsible behaviour, and conveys its commitment to preventing recurrence. Noncompliance penalties and the certainty of their application seek to deter subsequent noncompliance by the violator or others.[8] Positive compliance, on the other hand, requires that remedying harm takes precedence over extracting a penalty for violating societal norms.

Positive compliance programs attempt to recognize that some individuals and organizations act voluntarily to prevent and remedy harm because it is in their self-interest to do so. Thus, if the cost of control technologies and routines is relatively low, their introduction is simple, and if maintenance inspections will substantially reduce the probability of worker injuries, many firms will voluntarily adopt the procedures recommended.[9] Positive compliance seeks to create an incentive structure which will encourage increasing numbers of individuals and organizations to act responsibly voluntarily. This permits the government to employ its authority to reinforce rather than to redirect private sector action.

Positive compliance encourages firms to invest in ways and means of continuously reducing the detrimental impact of their actions on others. Improvements in international competitiveness, efficiency in the marketplace, the quality of work and the entrepreneurial spirit can be achieved by developing more effective and flexible internal control systems through a positive compliance program. By redesigning the management and organization of productive processes, positive compliance can promote innovation

and organizational responsiveness to change, improve the quality of life and work environment, add value to production, and better the utilization of human, financial and material resources. It should be noted, however, that these are the beneficial by-products of effective management of interdependence in an approach in which extensive growth is not the primary objective.

2.3.2 Implications of Implementation

The implementation of a positive compliance program affects the interrelations among all parties in the regulatory system. Private firms, citizens, government and regulators are expected to work cooperatively in formulating standards, designing control technologies and monitoring outcomes. The implications of using a positive compliance approach will be examined in four key areas:

1) managing interdependence;

2) data collection and access to information;

3) balance of control; and

4) enforcement.

2.3.2.1 Managing Interdependence

Interdependence, as indicated above, refers to the way in which organizational behaviour affects third parties or future generations. By managing interdependence, positive compliance alters the roles of both the public and private sectors which are currently served by two existing models:

1. **The Private Law Model:** In this approach, a contract is drawn up between involved parties and is used to achieve effective regulation when simple interdependencies are involved.

2. **Command regulation:** This approach is based on a public law model. In this case, the government sets the standards by which other parties must abide.

However, public protection from harm requires a new approach:

3. **The Mixed Public/Private Model:** This model reflects the positive compliance approach to regulation, and will be explored in detail below.

The differences between these models are depicted in Table 1.

Positive compliance involves a partial return to a private law or contract model for the management of interdependencies. The approach recognizes, however, that public supervision of private action (i.e., the actions of risk creators) is needed to ensure convergence between public and private priorities. The approach also recognizes the diversity of the public interest and the inability of government to represent adequately all of its elements. In the absence of broad public input, regulators may not have the expertise needed to forecast accurately the consequences of contending methodologies; accordingly, the mixed model assigns joint responsibility to the government and the public for defining, realizing and refining the "public interest".

The positive compliance model thus actually permits the public a more significant role in defining the "public interest" and negotiating trade-offs than does the so called public law model. Under the former, there is only partial delegation to government of responsibility for realizing the "public interest". It assumes a limited consensus about what constitutes socially acceptable behaviour, and also recognizes that the choice of regulatory instruments for realizing the public interest will affect the distribution of winners and losers created by government action and inaction.

Table 1 The Three Models of Law for the Regulatory Process

	Private Law/ Contract Model	Public Law Deterrence Model	Mixed Model Postive Compliance
Through bargaining, parties agree re form of performance to be undertaking and establish a timetable for performance	Private no government/ public participation	Government without private participation	Government/ public private participation with government veto
Parties specify performance standards to be employed in advance	Private no government/ public participation	Government without private participation	Private sector proposes, government authorizes
Parties specify compensation and remedy in advance if performance partial, untimely or inadequate. Provide incentive for timely performance	Private no government/ public participation	Specify after the fact not beforehand	Private sector proposes government authorizes
Monitoring and establishing failure to perform	Private no government/ public participation	Government plus public complaints	Government with broadest private/ public supplementation
Full implementation of mitigation plan	Private no government/ public participation	Government accountability	Government with public
Enforcement of terms of agreement	Government	Government	Government

The mixed positive compliance model recognizes that flexibility is important to the development of effective performance control systems, and thus culls the best approaches from the existing models. Like the private law model, the mixed model suggests that the private parties to be regulated should assume as great a role as possible in designing compliance and mitigation strategies. If only regulators design compliance strategies, then risk creators may not develop their own capacity to do so. In the absence of internal design capacity, ongoing redesign of productive processes and internal control systems will not occur, and entropy will reduce the effectiveness of technologies and control routines. From the public law model comes the assumption that the public should also participate actively. Without public accountability, the activities of the regulated industries and the distribution and quantum of harm will remain unknown. Consequently, mitigation will be impeded. Regulatory reform thus needs to incorporate both public and private resources and participation.

The need for government itself to participate in the management of interdependencies continues, however. Government intervention in the marketplace has never been a problem; rather, the need has been recognized for reassessment and redefinition of the roles of the public and private sectors in managing interdependence, and for the effective deployment of their respective resources.

In the late seventies and early eighties, deregulation was thought to be the answer to dissatisfaction with existing regulation. Emphasis was placed on the changing government's role by reducing its intrusions into the marketplace. Unfortunately, deregulation generated many of the harms which regulation tried to mitigate. For example, airline deregulation in the United States increased destructive competition, resulting in the undercapitalization of numerous enterprises. In turn, undercapitalization prevented the installation of safety measures which improved design capacity had made possible.[10] Undercapitalization also resulted in a rapid decline in the industry's competitiveness. Deregulation thus reduced the initial advantages acquired by passengers in large urban centres without alleviating the increased costs and reduced service experienced by those in the hinterlands.

In an attempt to move toward a mixed model of regulation, the Canadian Federal Government introduced the "Citizens Code of Regulatory Fairness". It gives citizens the right to criticize mitigation strategies and to offer suggestions to regulators for improving their design. The process is designed to generate converging priorities and to make it easier to gain consensus on what constitutes a reasonable or unreasonable trade-off. However, the Code fails to appreciate fully the citizen's potential role in monitoring harm and negotiating custom designed mitigation agreements - tasks the federal government reserves for regulators and itself. It also fails to understand that citizens as well as those subject to regulation acquire more active roles when a public model is replaced completely by a mixed model.

The current "Guiding Principles"[11] employed by the federal government in the creation of regulatory legislation also fall short of the concepts contained in the positive compliance model. A major objective of positive compliance programs, the prevention of harm, is minimized under the "Principles" because too much emphasis is placed on the costs of compliance associated with minimal preventive action. The "Principles" pay too little attention to the design of incentives that encourage ongoing improvement of mitigation strategies, and disregard the fact that, if firms fail to employ adequate prevention and to remedy harm, the costs are borne by the public and the government.

Regulatory reform must address more efficient use of both public and private resources rather than merely minimizing private sector costs.

2.3.2.2 The Balance of Control

The positive compliance model assumes that a balance of control exists among the interdependencies. That is, in implementing programs for the prevention and mitigation of harm, both private and public interests are given full consideration in regulatory decisionmaking. When either private or public interests take precedence over those of the other party, control is unbalanced and the goals of positive compliance will be undermined.

Undercontrol

Undercontrol is a state of imbalance in which private interests take priority over public interests. F.J. Thompson (1982) differentiates among three sources of undercontrol: target, standard and enforcement deregulation.

Target deregulation occurs as a result of the regulator granting exemptions from regulation to specific classes or groups, while standard deregulation substitutes a less rigorous definition of due diligence for a more rigorous one. Since the government's existing regulatory reform strategy is based on the erroneous assumption that overcontrol is the regulatory problem which must be managed, target and standard deregulation are presently the main focus of attention.

Enforcement deregulation occurs when enforcement practices fail to achieve compliance with the formal requirements imposed on targeted groups by statutes and standards. It may occur because the capacity to enforce standards has shrunk as a result of the inadequacy of regulatory resources, or because the enforcers' willingness and authority to cite infractions and require mitigation are lacking. Internally and externally generated forgivable noncompliance both contribute to enforcement deregulation - a major problem in Canada.

If noncompliance is forgiven, regulators may lose sight of the fact that they are responsible for managing interdependence. As a result, the interests of one party may be accentuated at the expense of others. The state then becomes an agent for creating winners and losers, rather than a neutral agent who increases the benefits to all parties through fair resolution of disputes. In addition, the public loses because certain violators are excused from meeting their obligations to society. In the absence of public access to data, the consequences the regulator's decision may have for members of the public regarding the quantum and distribution of harm to be borne by them are hidden. Substantive fairness is reduced and positive compliance is undermined because incentives are not consistently distributed in proportion to the quantity and certainty of mitigation.

The British compliance model assumes that all regulators are pure fiduciaries,[12] able to promote outcomes which are responsive to public concerns about intolerable risks through bargains negotiated with the regulated. Nothing requires regulators who forgive noncompliance to give public reasons for their decisions, to publish the data and the interpretation of results obtained from regulatory monitoring, or to specify the forecasts of future improvements in the prevention and mitigation of harm. Regulators are also not held accountable by their supervisors for their forecasts even though the public, individually and collectively, are liable to bear increased costs as a result of the failure to enforce minimal standards.

Overcontrol

A situation of undercontrol can easily develop into a problem of overcontrol. Overcontrol is a state of imbalance in which public interests take precedence over private ones. The greater the regulator's willingness to forgive noncompliance, the more likely it is that citizens seeking better mitigation will demand limits on regulatory discretion through an increased degree of external control. Citizen and union research, publicity, and greater legislative and/or executive supervision are likely to be employed to achieve such control. For example, the Occupational Safety and Health Administration (OSHA) in the United States has been subject to close supervision in an effort to reduce the rate of forgiven noncompliance.

An extensive literature demonstrates the detrimental effects of regulatory overcontrol, and notes that it promotes the following:

* a lack of forebearance, reasonableness and flexibility;[13]

* adversarial relations between firms and regulators, limiting regulatory access to data[14] and increasing the probability that firms will challenge the legitimacy of regulatory actions in court;

* diversion of funds from improving control technologies to acquiring legal expertise;[15]

* inability to gain consensus on standards;

* escalating demands for tougher legislation, tougher penalties and tougher enforcement;

* use of regulators with less expertise, less capability to design mitigation strategies, and less credibility with management, and who are evaluated by the number of citations they issue rather than the degree of mitigation they achieve.

Adversarial relations develop when there is little convergence among the assumptions, priorities, and forecasts of the regulated, the regulators and those whom regulation is supposed to benefit. Intense disagreement over acceptable and unacceptable trade-offs is likely to result, and government will be seen as creating winners and losers through its action or inaction. The greater the disparities between regulatory winners and losers, the more likely it is that the jurisdiction of the regulatory agency and the legitimacy of its methodologies will be challenged in court, in the legislature and in the executive branch.

If greater external control results from these challenges, discretion and flexibility decline further as power in the regulatory body becomes centralized. Control over regulatory policy determines whether overcontrol or undercontrol will result, and whose interests will be given preference. Consensus becomes less likely in turn, and the adversarial nature of relations escalates further.[16]

In a situation of overcontrol, the regulator is constantly required to monitor the extent to which private companies meet standards set by the government, and becomes primarily an enforcement agent. This commitment will prevent her from assisting private firms in developing technologies that will promote the prevention and mitigation of harm.

The Balance of Control in Canada

In Canada, the problem of undercontrol has tended to be much greater than the problem of overcontrol, a fact which the government's regulatory agenda fails to recognize. That document[17] defines the problem regulatory reform must address as deriving from overcontrol, not undercontrol. The American influence and an inadequate database probably explain the etiology of this error.

Undercontrol, as stated above, derives from inadequate enforcement of regulation due to shortcomings in the monitoring of compliance and to high rates of forgivable noncompliance. As a result of undercontrol, there is a wide disparity between the law on the books and the law in action. The Economic Council of Canada, in response to the 1978 refererence on regulation, measured the regulatory burden through an analysis of statutes. However, since this approach fails to acknowledge the lack of enforcement, invalid data are generated and the very basis for policymaking is inaccurate.

Undercontrol results in inadequate mitigation of the harm which Parliament believes should be controlled effectively. It results not only because of inadequate regulatory resources, but also derives from too little auditing of regulatory outcomes by Parliament. Overreliance on financial audits by the Auditor General, in the absence of program audits, denies Parliament the data and the feedback which are much more readily available to the American Congress. In the absence of such data, statutes are not refined or rescinded, and resources are allocated neither according to Parliament's actual priorities nor according to where the greatest potential for improved mitigation can be realized.

2.3.3 Contingencies Affecting the Choice of Mitigation Strategies

2.3.3.1 The Goals of Compliance

The objective of regulation is to achieve effective reduction of the harm generated by the risk creator's failure to perform in a manner which acknowledges his obligations to others. Compliance in itself is not the objective of regulation. In fact, an emphasis on compliance with socially acceptable minimum standards can divert attention from the central regulatory mission, namely increasing the ability of private parties to assume greater responsibility for managing their interdependence. If directed appropriately, their actions will continuously reduce the harm each member of society generates for other individuals and for the ecosystem.

When the goal of regulation is defined as being the achievement of compliance, overcontrol and inflexibility can result because it is assumed that there is only one best way of mitigating harm. On the other hand, when the goal of regulation is to generate increasingly effective harm reduction, the recognition that many ways of preventing and reducing harm exist is made possible. The goal then becomes one of perpetually increasing the effectiveness of the selected mitigation technique, while simultaneously seeking to minimize the resources required to achieve that degree of effectiveness. In the absence of one "best way" of doing things, it becomes increasingly important to identify and refine regulators' understanding of the contingencies that affect choice of

mitigation strategies and of the obstacles that such contingencies pose for perpetually improving harm reduction.

Furthermore, by shifting the emphasis from compliance to improving the effectiveness of mitigation techniques, innovation becomes more important than increasing certainty and reliability at all costs. However, a willingness by regulators to permit firms to adopt unconventional means for reducing harm carries with it the possibility of failure, or that a redistribution of harm will advantage some at the expense of others. Liroff's research on air pollution regulation reports that while costs savings have been substantial, many opportunities for increasing the effectiveness of prevention were foregone.[18] Leaving harm prevention to the market did not lower monitoring and enforcement costs; in fact, those costs rose, since monitoring became more costly when flexibility increased. Under such circumstances more information is needed to track impact. In the absence of effective tracking, noncompliance and paper compliance increase, leading to enforcement deregulation for Thompson. In turn, prevention and remedial action decline, thereby advantaging risk creators at the expense of the public.

2.3.3.2 Factors Determining the Likelihood of Compliance

A number of variables will influence the extent to which risk creators will comply with legislation and standards. These include the following:

1. the compliance history of private firms;
2. the firms' ability to bear the costs of compliance;
3. the degree of concertation of interested parties;
4. the firm's ability to measure harm;
5. the recording of and access to information; and
6. the level of risk associated with the regulated activity.

1. The Compliance History. Positive compliance emphasizes the importance of differentiating among risk creators on the basis of their past performance. Measurement of risk creator performance and consistent allocation of incentives by the public and private sectors on the basis of that performance are critical. Thus under positive compliance, regulators should define the choice of mitigation strategies as a privilege. The availability of that privilege should vary in proportion to the degree to which past performance shows that a regulated organization has the will and the ability to act in a

socially responsible manner. Scholz (1987) stresses the importance of adjusting treatment of the regulated rapidly in response to changes in compliance behaviour. As soon as "bad apples" alter their behaviour, the incentives they receive must change, so that the benefits of mitigation are experienced almost immediately.

2. *Business Size.* Legislation exempting small businesses from the need to comply with definitions of due diligence is often justified by the precariousness of such firms and by the severe limitations on the resources available to them. Exemption of such firms is a costly form of subsidy, however, since opportunities to mitigate harm are foregone, permitting harm to fester and multiply. It would be more appropriate to assess a risk creator's ability to pay in a systematic and standardized manner, perhaps through a computerized system such as the United States' Environmental Protection Agency's ABLE program.[19]

If firms are deemed unable to pay certain costs, a portion of such costs could be borne by the government rather than harm being permitted to multiply. In this way, harm is reduced and the effectiveness of the firm's internal control systems is increased. Such changes can reduce the firm's precariousness while mitigating any harm it may cause. Encouraging the pooling of resources among small firms, so that they can jointly acquire expertise and evolve more effective quality control systems, is another approach which is preferable to forgiving noncompliance.

3. *Concertation of Interested Parties.* The ability of regulated organizations to choose flexible mitigation strategies varies with the degree of concertation among the regulated, regulators and the publics. The more the priorities of the parties converge, the more likely it is that consensus will occur over what constitute acceptable and unacceptable trade-offs. Such consensus increases the ability of the risk creators to define the range of actions which are unlikely to be contested, and reduces the cost of the authorization process.

Conversely, the less the degree of concertation, as a result of inadequate public trust in the preparedness of the private sector to control harm, the greater will be the divergence in definitions of tolerable and intolerable risks. Agreement on the relative effectiveness of alternative ways of mitigating harm will be reduced. Consequently, third parties will attempt to increase the degree of external control over the risk creators and constraint will more and more be chosen as the primary mitigation strategy. An increase in the degree of external control could involve mobilizing the legislative and/or executive branches to curb the authority of regulators and/or the regulated, employing litigation to challenge the jurisdiction of the regulatory agency in court, or identifying and publicizing the harm generated by noncompliance and the failure of firms to reduce harm.

4. *The Ability to Measure Harm.* Receptivity to innovation will only occur among the regulated when there is certainty that its impact can be tracked effectively, and that harm reduction will occur rapidly and consistently. Developing valid measures of the quantum and distribution of harm is thus a prerequisite for broad acceptance of innovative technologies, control routines and approaches to regulation. The regulator's ability to provide assurance that no loss in mitigation or unfavourable redistribution in its allocation result from regulatory flexibility is another prerequisite for effective dynamic regulation.

5. *Access to Data.* The data used must be readily available to the public so that competing interpretations can be advanced easily. If openness and valid measures of quantum and distribution of mitigation do not exist, potential losers will demand tough enforcement of minimal standards. Such a demand would impede the flexibility required to promote the objective of positive compliance, namely the ongoing improvement in mitigation strategies and technologies. Recording performances and failures and making such data accessible when allocating privileges provide a major incentive to investment in mitigation.[20] The more private and public sector bodies are using those records, the greater will be the incentive for risk creators to invest voluntarily in mitigation.

It is important to note that positive compliance cannot possibly be used when access to accurate information on performance is denied or limited. That is why dispute resolution procedures which limit government and public access to such information provide a critical obstacle to the effective use of positive compliance. This aspect will be discussed in greater detail below.

6. *The Level of Risk.* Substantial investment in prevention will be undertaken voluntarily only when the potential for calamity is real. Therefore, it is necessary to determine with certainty the potential causation of harm, particularly when preventive action is costly and complex to design. Evidence of harm created contributes heavily to the motivation for action.

2.3.3.3 Procedural Fairness

The choice of available mitigation strategies will increase when third parties believe that regulators are managing interdependence in a fair, equitable and accountable manner, and that they are not creating winners and losers. Choice will also increase when the regulated believe that the regulators' demands are reasonable. Under such circumstances, the adversarial nature of regulatory relations will decline.

Risk creators are likely to see demands as reasonable under the following circumstances:

1. when regulators are viewed as experts acting on the basis of professional norms rather than in response to fleeting political pressure;

2. when the reasoning for the mitigation strategies suggested is explicit, not implicit, and is communicated so as to make sense to the regulated;

3. when the cost saving potential has been estimated accurately and documented carefully; and

4. when there is a clear moral mandate for efforts to mitigate harm.

Third parties or risk bearers, in turn, are likely to view the regulatory process as substantively and procedurally fair when these criteria are met:

l. negotiation of mitigation strategies should be an open process responsive to third party concerns;

2. noncompliance penalties should reflect societal values accurately; and

3. valid evidence of steady progress toward improved mitigation should be provided.

The better the opportunities are for risk bearers to criticize the priorities, assumptions and forecasts on which standards of due diligence are based and mitigation strategies negotiated, and the more willing regulators are to design remedies sensitive to third party concerns, the greater will be the legitimacy of regulatory actions. The greater the degree of regulatory legitimacy, the readier risk bearers will be to allocate discretion to regulators, and the more likely it is that they will see the regulators as reliable fiduciaries.

2.3.3.4 Enforcement

In a flexible positive compliance program, many forms of regulatory enforcement are available when noncompliance occurs. As stated previously, a major aim of enforcement is to encourage the development of harm control technologies by private firms. That is, compliance is not the end, but merely the means to achieving the goal of harm prevention and reduction. Three basic forms of enforcement are available to regulators: forebearance, penalties and prosecution.

Forebearance

Forebearance differs significantly from forgiving noncompliance. According to Bardach and Kagan, forebearance involves a decision by a regulator to "selectively negate, modify or delay the enforcement of regulations when their application to a particular violation would be unreasonable or of secondary importance".[21] Forebearance is a concept which emphasizes the need to assess the consequences of nonenforcement against the quantity and distribution of harm. When there is nothing to be gained in terms of preventive action and mitigation of harm, then forebearance is appropriate. In calculating the appropriateness of forebearance, however, it is essential to address its consequences for an ongoing investment in prevention and mitigation strategies. Forebearance can only be justified when there is considerable certainty that such investment will not be negatively affected.

Forgiving noncompliance, on the other hand, undermines the very aim of positive compliance programs. When transgressions are allowed, private firms lack the incentive to develop internal controls and to design systems that meet regulatory standards. In contrast, forebearance is applied in situations in which enforcement would have no effect on achieving prevention and/or mitigation. The regulator's assessment of the consequences for harm reduction is therefore crucial in determining whether forebearance is an appropriate approach.

Penalties

Considerable controversy surrounds the issue of whether penalties, particularly large penalties for noncompliance, promote or undermine the objectives of positive compliance programs. In particular, the following questions demand attention:

* Do penalties for noncompliance increase the probability that those who are regulated will institutionalize procedures for consistent mitigation?

* Do sizeable penalties increase the incentives for ongoing mitigation?

The American experience provides considerable evidence that sizeable penalties, collected in full or reduced only to achieve increased mitigation, can encourage both investment in internal control systems and the development of internal mitigation expertise. Risk creators can justify hiring safety engineers as a cost-effective investment when penalties for safety violations are substantial, certain and continuing, rather than a one time expense.[22] Furthermore, the greater and more certain the costs of noncompliance, the likelier it is that risk creators will see self-monitoring and compliance as strategic rather than mere operational responsibilities. Under such circumstances, managerial efforts to improve mitigation will likely become a criterion for evaluating

managerial performance. Thus, if penalties can increase in-house competency to design and monitor effective mitigation strategies, they can become an important element in the enforcement arsenal, and the answer to the first question must be positive.

The systematic imposition of sizeable penalties shows which activities are socially unacceptable or not tolerated as long as a government's definition of such activities converges with that of the public. Failure to impose and collect such penalties will, conversely, undermine those values. The danger, however, is that payment of penalties will be viewed by violators as having met their social obligations and will reduce their ability or sense of duty to mitigate the harm they have created. When the assessment and collection of penalties thus act to reduce the quantum of mitigation, then penalties are interfering with positive compliance, and the answer to the second question may well be negative.

As long as penalties contribute to mitigation, they promote positive compliance. Thus mitigation should be assigned the highest priority while trade-offs should assign assessment and collection of penalties a lower priority. The evidence is convincing, however, that if penalties are threatened but not consistently assessed, and if those actually assessed are not sizeable, a firm's perception that investment in mitigation will generate a substantial return will disappear rapidly.[23] Positive compliance depends for its long-term success on that very perception.

The design of penalties and incentives thus becomes a critical component of any positive compliance strategy, especially given Genn's (1987) and Baldwin's convincing evidence that there is no such thing as a "good apple". Companies appear prepared only to acquire information, expertise, technologies and control routines when the consequences of failing to do so are recognized as potentially calamitous; firms willing to invest in mitigation in one area are unlikely do so in areas more removed from their prime concerns. In other words, penalties are vital components of the incentive system in positive compliance programs.

In summary, penalties promote positive compliance only when used effectively by regulators. Sizeable penalties applied with consistency and certainty increase the incentive for private firms to prevent and mitigate harm. However, the broader the zone of forgivable noncompliance, the greater the uncertainty about the quantum of punishment, the costs of noncompliance, and the loss of incentives to invest in preventive and remedial technologies and routines. As a result, rates of voluntary compliance can be expected to decline. Furthermore, Scholz has predicted that as the proportion of noncompliant risk creators increases, compliance becomes more and more contingent upon the quantum of penalties and incentives and the speed with which they are imposed (Scholz, 1987). Only by applying penalties in an informed manner can regulators circumvent the problems associated with noncompliance and promote a positive compliance program.

Incentives

Incentives, like penalties, can promote investment in increasingly effective control technologies and techniques as long as their application is consistent and certain. The following are but a few examples of possible incentive strategies:

* Reputation may act as an incentive for a small number of risk bearers, but may not be of concern to all.

* Reduction in the cost of workers' compensation coverage or insurance costs can be easily documented and employed by internal control specialists to justify investment in control technologies.[24]

* Reduced eligibility for bank loans in the absence of regulatory approval can serve as an incentive with a quantifiable rate of saving.

* Highly industry specific prerequisites, such as access to the privilege of unloading ships between sunset and sunrise.[25]

Prosecution

Criminal or civil prosecution is used to demonstrate society's commitment to the extensive mitigation of harm by requiring firms to internalize fully the costs their actions generate for society as a whole or for specific individuals/firms. It is a tool which can be used selectively to increase responsiveness. Prosecution labels firms as having behaved immorally; hence, the threat of publicity will in some cases increase the bargaining power of those seeking to negotiate mitigation agreements. Under the threat of prosecution the commitment to mitigate harm may be more extensive than those routinely negotiated.

If prosecution results in conviction, it becomes easier to enforce mitigation agreements because of the clout or increased bargaining power derived from a court order. In addition, those failing to implement the terms of the agreement are subject to being found guilty of contempt of court.

If prosecution of carefully selected cases can produce convictions and impose substantial penalties and/or obligations to mitigate harm, then a risk creator's private counsel may find herself transformed into an effective advocate of private investment in prevention. Private legal counsel would then be performing one of the roles that inspectors play - promoting prevention and, in all likelihood, would perform that role more effectively because her emphasis would be on demonstrating to the client that prevention and/or mitigation are investments, not expenditures.

There is substantial evidence to suggest that publicity,[26] landmark cases, and follow-up cases testing the courts' willingness to consistently apply the resulting principles, are the only forms of general deterrence likely to promote voluntary compliance. As a result, the outcome of other prosecutions will likely affect the future voluntary compliance only of the party prosecuted. In addition, each failure to achieve a conviction, substantial penalties, or remedial orders will dramatically reduce the probability that prevention and mitigation will be undertaken voluntarily.

Some aspects inherent in the prosecution process itself present obstacles to the achievement of positive compliance. Prosecution centres attention around single instances of noncompliance, such as failure to exercise due diligence; that is why one-offs are more likely to result in prosecution.[27] In its outcome, prosecution focuses on one time compensation for a specific instance of harm incurred by a narrowly defined category of victims. It characteristically avoids remedies that restructure organizations to reduce the probability that their actions will generate harm for others in the future, will benefit all those harmed, and will increase the magnitude of prevention in future.

Prosecution fails to center any attention on the custom design of mitigation agreements to maximize their effectiveness, or on their contribution to promoting ongoing investment in mitigation technologies. As a one time only compensation measure, it fails to address the aim of future harm prevention. It is for these reasons that prosecution is only used as a last resort by those seeking to achieve positive compliance.

2.4 Positive Compliance in Australia, Britain and the United States

2.4.1 Australia

Australian regulatory agencies have developed a wide variety of procedures for authorizing nonstandardized definitions of due diligence and for promoting broad public participation in the authorization process. The section below presents a preliminary introduction to a selection of these procedures; future chapters will explore these in greater detail with reference to specific case studies.

2.4.1.1 File Hearings and Public Inquiries

The Industries Assistance Commission (IAC) advertises its inquiries, inviting participation, while the Trade Practices Commission sends applications for authorization of self-regulatory schemes with the potential to reduce competition to firms and organizations deemed to have an interest in the matter. Submissions for both are received and placed on public record, and a draft report is written and circulated. The IAC holds public hearings on its draft reports. The Trade Practices Commission, on the other hand, schedules a conference, which any party with a direct interest in the outcome may attend, only if a request for a conference is received. In both cases, all parties represent their own interests, lawyers are not used, and there is an opportunity for parties to question the submissions of others. A final published report is prepared by the IAC for the Minister, while the Trade Practices Commission renders a written judgement which can be appealed.

This combination of file hearings and predecision conferences provides risk bearers with an opportunity to evaluate and criticize the assumptions, forecasts and priorities underlying any conditions of consent by a commission. As well, knowledge of the conditions imposed on risk creators increases the probability that risk bearers will participate in monitoring compliance and will mobilize regulators when the conditions are being violated. Greater openness in negotiation of the conditions of consent thus becomes a valuable technique for reducing enforcement deficits.[28]

In a similar manner, the New South Wales Department of Conservation uses Commissions of Inquiry to decide whether approval for a proposal affecting environmental or heritage matters should be granted. Again, the inquiry is widely advertised and parties represent themselves before the commission. Cross-examination is rarely permitted and procedures do not conform to the court room rules of evidence. Following applications for confidentiality, submissions are made. Questions and answers are followed by final statements. There is no transcript, but parties provide documents, questions and responses in writing so that as complete a record as possible can be compiled. The record provides the basis for a report which is submitted to the Minister of Conservation and made public by him. Provisions exist for an appeal to the Land and Environment Court.

These regulatory procedures provide an open forum in which all interested parties can participate, and where they gain an opportunity to resolve differences and to increase their level of concertation. Access to regulatory information and alternative viewpoints facilitates achievement of a balance of control among parties, and reduces the probability that the interests of either risk creators or risk bearers will be overlooked.

2.4.1.2 Compliance Records and Franchise Agreements

Some specific procedures have been developed in Australia to permit public participation in the development and authorization of regulatory standards. Through these processes, conflicting priorities, assumptions and definitions of acceptable and unacceptable trade-offs can be narrowed down. The attempt is to generate as broad a consensus as possible, in order to increase the probability of full implementation of the rules so authorized.

Custom designed rules, such as those proposed by a mine to ensure safety, are authorized and the results of inspections are recorded in a record book which is generally available and checked by an inspector. Mitigation steps taken would be recorded there as well.

Franchise agreements are pieces of legislation which specify the conditions of consent negotiated between governments and large resource companies seeking development permits. Opportunities to debate the conditions of consent will vary with legislative practice within a given jurisdiction. The conditions of consent can only be amended through legislative action. The authorization process provides considerable opportunity for the custom design of rules to fit the circumstances, ensuring that the limits imposed to reduce harm are both feasible and effective.

2.4.1.3 Licensing and Authorization: The Proactive Approach

In Australia, there is extensive reliance on licensing as a means of specifying obligations and as an incentive to the exercise of due diligence. Obligations of those in hazardous occupations are specified in licences which must be obtained as a condition of employment. Licences can be revoked or conditions attached to them; there is provision for an inquiry following incidents which may have been caused by inadequate diligence. Obtaining a licence is a privilege, and threat of loss of licence or the imposition of restrictions on its terms both act as incentives in promoting compliance.

As a result of the number and variety of activities requiring authorization, Australian regulators are very conscious of the clout available to them when negotiating mitigation agreements or seeking compliance. Harbour masters, for example, must authorize loading and unloading after dark, taking on oil, and many other potentially dangerous activities. Control of such privileges provides a valuable regulatory resource because of the magnitude of the financial savings the privileges can permit. Utilization of this resource provides important insights into the incentives available to regulators in all countries who seek to generate greater use of voluntary compliance.

While a great deal of attention has been given to the authorization of custom designed definitions of due diligence in Australia, considerably less has been devoted to enforcement. The Australians prefer an approach to regulation which does not require proactive mobilization, one of the reasons for their placing a great deal of emphasis on variants of licensing. This approach reduces the number of regulatory resources consumed by a given program, but also increases the probability that numerous instances of noncompliance will remain unknown or be disregarded; the result is undercontrol. Given the absence of monitoring by the regulatory agency, citizens must develop their own monitoring programs - a major function of the Australian Consumers Association. While such monitoring reduces enforcement deficits, private monitoring should supplement rather than replace regulatory monitoring.

2.4.2 The United States

Regulation in the United States, by way of contrast, has been characterized as a situation of overcontrol. Regulatory inspectors are used primarily to monitor and collect data on compliance. However, the emphasis on monitoring has sometimes diverted resources from the major tasks of designing systems and standards aimed at increasingly effective harm control and reduction, to their overinvestment in monitoring and enforcement activities. Consequently, adversarial relations among interested parties have resulted while standards and control technologies remain underdeveloped. Nonetheless, there is evidence of increasing flexibility, innovation and variety in enforcement and a redirection of the enforcement focus to remedying harm.

2.4.2.1 Monitoring Compliance

Having placed their emphasis on improving their ability to monitor compliance, the Americans are now in the process of developing technologies permitting ongoing surveillance rather than intermittent inspection of harm generated. Such technologies are a prerequisite for identifying the quantum of harm and a better understanding of its distribution. American regulators seeking to devote fewer regulatory resources to identifying violations and designing standards are engaged in mobilizing citizens, unions, employees, management and other government agencies to supplement regulatory monitoring and to assume primary responsibility for monitoring compliance with standards. The assumption has been that if regulatory agencies devote fewer resources to collecting data on compliance, they can devote more attention to diagnosis, design and effective auditing of compliance systems.

In a system based on achieving compliance, enforcement procedures and accountability are of prime importance. In the United States, considerable attention has been devoted to improving the design of the incentives for compliance. Regulators

concerned about improving collection rates, so that penalties imposed are actually collected and not "forgiven" through noncollection, have relied extensively on administrative penalties. Increasingly, flat-rate penalties have given way to civil penalties based on savings realized through noncompliance.[29] Compliance histories affect the penalties assessed; hence, contractor listing is used as an incentive[30] and the ability to pay is systematically assessed.[31] Ticketing of violations is used to reduce delay and to improve collection rates.

2.4.2.2 Delegating Authority

In spite of general regulatory overcontrol, many examples of a balance of control exist. In the mitigation of toxic waste problems, for example, design and implementation may be delegated to a multiplicity of parties - up to 700 - whose efforts are coordinated by consultants, not regulators. Participation in programs delegating some regulatory responsibilities to the risk creator has been viewed as a privilege to be earned not a right.

The remedial design and action proposed are subject to regulatory authorization following a public comment period. The Environmental Protection Agency (EPA) responds on the record to all issues raised. To increase the probability that designs will be authorized, there is considerable ongoing consultation among risk creators, risk bearers and regulators. The public and private sectors are sharing financial and design responsibilities as well as project management responsibilities. This area is an example of a fascinating and innovative public/private mix.[32]

2.4.2.3 Litigation

The frequent use of prosecution and litigation in the United States has created intense adversarial relations among risk bearers and risk creators. Litigation and numerous challenges to the legitimacy of regulatory authority in response to both over- and undercontrol has eroded the degree of concertation among private firms, citizens and regulatory agencies. Alternative dispute resolution procedures and broader and earlier consultation are being tested widely. However, alternative dispute resolution mechanisms may place more emphasis on resolving disputes between specific parties than on the adequate protection of public interests.

2.4.3 Great Britain

In the United Kingdom, compliance programs are based on a close coupling between the private sector and regulatory agents. At the same time, the relationship

between regulatory agents and the public is quite distant. This asymetry in interdependencies has a considerable impact on the extent of achievement of harm control and the way in which control is approached.

2.4.3.1 Working with Private Enterprise

The British model represents a situation in which private managers assume a great deal of decisionmaking power. Regulators seek to gain the consent of management for prevention programs; they do not emphasize gaining the consent of those engaged in the implementation of such programs. Ongoing consultation with management provides opportunities to inform the private sector about harm prevention and mitigation, that is, regulators can apprise private firms of what is to be done. By means of promoting, advising and education, regulators seek to influence the direction of management decisions.

The tight coupling of regulators and the private sector with minimal input from public sources results in a state of regulatory undercontrol. In the British system, the interdependencies are balanced in favour of the interests of the private sector over the public sector. The diversity of the public interest remains unknown and the potential for innovation in the regulatory system is diminished. The public is not given responsibility for overseeing the implementation of technologies and does not share in the burden of monitoring and development. As a result, the aim of control system design and of monitoring to meet a spectrum of needs is undermined.

The relative lack of consistent control and public participation in the British system indicates that harm control may not be the first priority in the operation of the regulatory system. Too much emphasis is placed on the costs to the private sector of developing new technologies, at the expense of full consideration of the harm allowed if they are not implemented. In order to shift priorities to emphasize harm prevention and mitigation, the regulatory role should be revised and public input and responsibility should be activated. There is a pressing need for greater regulatory sensitivity to the consequences of forgiving noncompliance, and to the importance of substantive as well as procedural fairness.

2.4.3.2 The Regulator as Fiduciary

The British regulatory system assumes that regulators are pure fiduciaries,[33] able to accurately define and administer the public interest without the need for public involvement. Little attention is devoted to providing openness and accountability. Little disagreement in priorities, forecasts and the definition of acceptable trade-offs is assumed; consensus on priorities is taken for granted. Effective regulation is assumed to

require the consent of the risk creator, and regulatory practices thus stress the need to be sensitive to risk creator concerns rather than to those of the risk bearers. Minimizing restrictions on managerial rights is a high priority.

As a result, there is a marked contrast between the Australian and the British approach to regulation in the area of health and safety. The Australians are clearly more committed to achieving a balance of control than are the British; the British approach tolerates large enforcement deficits and chronic undercontrol. Effects monitoring is largely ignored.

2.4.4 Summary

In summary, the British and the Australians both experience considerable degrees of undercontrol, yet the Australians have created a degree of openness in the development of regulatory standards which is foreign to the British approach.

In the United States and Australia, risk bearers have organized more effectively to articulate their interests than in Britain. In these two countries, greater openness and accountability have developed.

Litigation has been most extensively employed in the United States, both by risk bearers to limit undercontrol and by risk creators to limit overcontrol. Efforts to reduce litigation have thus focused the attention in the United States in particular on the need to more effectively balance the interests of risk creators and risk bearers.

The inadequacy of regulatory resources in Australia and the United States has encouraged both countries to experiment with strategies for mobilizing risk bearers into supplementing regulatory attempts to reduce enforcement deficits.

3.0 SECTORAL APPROACHES TO POSITIVE COMPLIANCE

3.1 Introduction

Positive compliance models provide a choice of strategies for harm prevention and mitigation. The selection of strategies is affected by a number of circumstances. The most important factor to consider is the level of risk, and of the harm associated with the activity concerned. In considering what regulatory actions to apply, cost is an important consideration, especially for the risk creator. However, cost cannot take precedence over harm control, or else positive compliance will not achieve its primary aims. The present chapter sets out to explore how a variety of industries have approached positive compliance, and arrived at their differing choices of strategies.

Within the literature on positive compliance, one can identify two major and different models of regulatory procedure that have been developed and implemented in various regulatory environments:

1. accountable self-regulation, and

2. the conditional approval process.

A high degree of agreement exists among British,[34] American,[35] and Australian[36] authors writing on occupational health and safety about the prerequisites for compliance and the circumstances under which accountable self-regulation will and will not be effective. A great deal of high-risk activity takes place outside of the occupational health and safety area; such activities may require licensing, that is, conditional approval of the relevant activity or of the authority to act. Both of these models and their applications will be discussed in relation to the primary goals of positive compliance, the prevention and mitigation of harm, and the limits to achieving these goals encountered within each model.

3.2 Occupational Health and Safety

3.2.1 Accountable Self-regulation

Accountable self-regulation is a regulatory model in which private firms take responsibility for designing and implementing harm control systems. The efforts of private organizations are audited by regulators, who also authorize the performance standards and control technologies proposed, at least in part, by the regulated.

Accountable self-regulation can only be employed when potential risk creators assign a high priority to preventing or mitigating a specific harm and are thus prepared to invest in information, expertise and equipment. This willingness generally occurs when employers view expenditures as investments which will prevent probable economic or political catastrophe due to known dangers of the particular work processes a company or industry employs, to obligations of the firm to appear socially responsible because of its size and/or visibility, or to the magnitude and certainty of sanctions for noncompliance.[37] When these circumstances arise, it is possible to convince firms that they should invest in the development of effective defensive strategies. Such investments, however, are less likely to result if alternative, less costly and equally effective defensive strategies are available, such as the purchase of an insurance policy.

Under some circumstances, the accountable self-regulation model may be inappropriate. When health and safety are not assigned a high priority, or when prevention is reactive not proactive, accountable self-regulation becomes unworkable. While it is possible under specified circumstances to foster a proactive approach on the part of firms, the barriers to doing so are significant.

3.2.1.1 Conditions Affecting Development of Accountable Self-regulation

A number of conditions within and outside the private organization affect the development of an accountable self-regulation approach. In particular, these include the following:

1. internal expertise;
2. union participation;
3. a perceived high risk; and
4. regulator clout.

The discussion below will highlight the impact of the conditions on the effectiveness of the model and on the role of the regulator.

Internal Expertise

Once companies decide to invest in safety, they will seek comprehensive information about their legal obligations and the most effective methodologies for meeting them. They are likely to hire experts who will keep abreast of the legal and health and safety literatures; provide advice on the most appropriate control technologies

and routines; lobby senior decisionmakers with in the firm for rapid authorization and implementation of suggested strategies; monitor compliance, entropy, and the direct and indirect costs and benefits of such investments; and document the claim that the rate of return exceeds the cost. Safety professionals will devise incentives and sanctions to increase compliance, and search continually for more efficient ways of preventing and mitigating harm.

Where such internal expertise exists and whenever its advice is heeded, the role of the inspector is transformed. The inspector no longer needs to inform the firm about its obligations or about the latest literature. Since the inspector is dealing with a co-professional, she will give advice, not orders - suggesting new findings, methodologies, and the experience of other firms which might prove useful. The inspector can contribute a new pair of eyes, a second opinion which can be used to identify hazards overlooked, and suggest problem-solving techniques which might be more effective and/or less costly than those currently employed or proposed. Furthermore, the inspector can act to reinforce the influence of internal experts within their firms, and facilitate implementation of their advice.[38] The inspector may focus attention on program development among lower management and workers, or those with operational responsibilities, and thereby supplement existing safety and health activities.[39]

Accountable self-regulation assumes that an inspector is working with a professional, sharing expertise and auditing the existing program in order to suggest improvements. Under these circumstances, inspectors must themselves be experts whose skill and knowledge will be recognized by co-professionals. Without such expertise, their suggestions will have less legitimacy and there is less likelihood that the benefits the firm can gain from an audit and their suggestions will be appreciated. In the absence of acknowledged expertise, the authorization and audit responsibilities of the inspector will be viewed as inappropriate governmental intrusions into the private affairs - the development of an effective internal control system - of the firm.

It is essential that inspectors in turn treat internal control specialists as co-professionals. Kagan's interviews with oil producers in California[40] emphasize that access to information will be reduced substantially and the legitimacy of the inspector's authority will be questioned if he fails to do so. If the inspector gives orders or acts as a policeman, professional resistance will be encountered.

Genn (1987) points out that in the absence of safety professionals, firms will lack the knowledge of legally binding obligations, of methodologies for meeting such obligations, and of the trade-offs associated with each methodology. Such circumstances deny firms the capability to design effective prevention and mitigation strategies. The absence of professionals in itself signals the low priority attached to safety, because the potentially catastrophic consequences of a safety lapse have not been recognized institutionally. Similarly, both Genn (1987) and Baldwin (1987) state that a firm's lack of

emphasis on the appearance of social responsibility gives health and safety issues a low priority in its budget.

In the absence of internal expertise, the style of the inspectors - dictatorial or conciliatory - makes no difference. The firm neither seeks nor assimilates information. The only advice it receives is from the regulatory agency and, possibly, a trade association. The regulatory agency, with or without the support of the trade association, becomes the only lobbyist for change. Implementation of advice will depend on the regulator's ability to convince the regulated that expenditures are necessary and that the costs of not taking the regulator's advice will exceed the costs of accepting it.[41]

Union Participation

A high degree of unionization increases the degree of external control to which firms and regulators may be subject. A union may contract for improved health and safety measures and mobilize the inspectorate, thereby increasing the frequency of inspection and the certainty of sanction, as well as awareness of noncompliance and the inadequacy of a firm's social responsibility. Thus, unions can be used to improve the probability that expenditures on safety are viewed as investments. Rees' work suggests that, if rapid action to prevent and mitigate harm occurs in response to violations, unions can contribute significantly to an effective internal monitoring system.

Without knowledge of the rules, regulations and the regulatory structure, however, unions will be unable to define the clout which they can exercise to change management's behaviour. Before assigning responsibility to workers and organized workers for developing and implementing effective and reliable internal control systems, it is therefore essential to assess the informational resources and design expertise to which the workers have access.[42]

Without the ability to mobilize design expertise, workers will be less effective in contracting with their employer for improvements, and unable to participate effectively in the regulatory agency's consultative processes. As well, without research capabilities and knowledge of the literature, unions will be less effective in their efforts to expand the definition of recognized hazards - those which management is likely to monitor and invest in controlling.

By contrast, direct union involvement in enforcement may subvert the aims of accountable self-regulation. Scholz (1987) emphasizes the negative consequences for enforcement effectiveness which can follow labour involvement in the design of enforcement programs. He argues that union participation results in an increase in "stringent enforcement", a concept to be distinguished from concentrated enforcement.

Stringent enforcement undermines effectiveness by reducing the incentives that are available to reward willingness to comply.[43]

Rees' findings indicate that the involvement of unions operating in high-risk industries such as construction would have quite different consequences, because workers and management are more likely to agree on the need to avoid catastrophes than in other industries. Rees argues that industrial unions, on the other hand, assume that their employers are ill-intentioned, and that they seek to reduce costs by minimizing safety expenditures. Such unions seek to limit the harm forecast by lobbying for stringency and a high degree of external control, preventing regulatory inspectors from adjusting their behaviour when increased cooperation is forthcoming.[44]

Unions have an important role to play in the development of prevention/ mitigation designs, but their involvement in the enforcement role of the regulator can lead to a situation of overcontrol and to the demise of an accountable self-regulation program. To preserve a balance of interdependencies, the regulator must therefore retain her authority and decide whether the union can be effective as a supplementary monitor.

Perceived High Risk

Willingness to invest in high cost improvements in the design of work processes will only exist when such investment is seen as affecting directly those limited hazards which a given company recognizes as having the potential for economic and/or political catastrophe.[45] Thus, regulators seeking costly changes must closely link their advice/command to the catastrophic consequences of failing to adopt such technologies. There must be convincing evidence that the technologies/methodologies advocated will increase return on investment.

The regulatory agency must constantly pass on to internal control specialists new evidence of the severity of the risk and on the relative effectiveness of available technologies. Disseminating technical materials becomes a regulatory responsibility when the regulated firms have access to internal experts who assimilate the knowledge into the advice they provide their employers.

The Role and Clout of the Regulator

The clout of the inspector/auditor can be increased through supplementary monitoring, a strong moral mandate, private contracts defining complementary obligations, performance standards, procedures for assessing performance, and remedies in the event of nonperformance. Clout is increased as well by evidence of hazards and

their causes, by improved data on the relative effectiveness of mitigation technologies, and by the severity and certainty of sanctions. The latter are important variables in a firm's calculations concerning the relative costs of disaster and safety initiatives.

Rees found that initially, investment in safety professionals was a response to the perception that the magnitude of penalties and liability of corporate office holders provided by the *Occupational Health and Safety Act* was so great as to justify the expense. When the penalties actually imposed proved minimal, the justification for continuing such investment would have disappeared if changes in the workers' compensation system had not created additional incentives. These proved to be a resource which enabled safety professionals to convince management that expenditures on safety remained a worthwhile investment.

In designing sanctioning systems, it is essential to recognize that while forecast costs may stimulate investment in the beginning, it is the cost of sanctions actually imposed that determines continued investment.[46] If those costs prove not to pose the threat of a calamity, rapid disinvestment can be expected. The motivation to assign a high priority to safety will rapidly disappear, and accountable self-regulation will no longer constitute a viable regulatory alternative.

In the accountable self-regulation model, the regulator plays an essential role in building the incentive structure that will allow private firms to take responsibility for their actions. Baldwin (1987) notes that in dealing with firms, the regulator has the following enforcement strategies available:

1. Prosecution, which requires precise regulation;

2. Notices of prohibition, a strategy which is only likely to be used when a clearly defined superior methodology for prevention/mitigation is available and accessible;

3. Improvement notices; and

4. Persuasion and negotiation. He differentiates between three types of persuasion and negotiation:

   (a) Giving advice which involves no negotiation. It requires brief simple rules, can only be used when the level of risk is low and the probability of voluntary compliance is high, or when the level of risk is very high creating a high probability of voluntary compliance;

   (b) Education, which involves changing the assumptions of the regulated so that firms acquire an understanding of design principles and not

merely knowledge of the rules. This is needed when the level of risk is high; the form required should vary in response to the firms' priorities.

(c) Promotion and information, which can be used when the risk of harm is very clearly defined and there are inexpensive, highly effective accessible rules, procedures and equipment which effectively prevent and mitigate harm. This strategy will only be effective when promotion campaigns and information are targeted.

However, the appropriateness and effectiveness of these general strategies depends upon the problem characteristics. That is, the employment of specific incentives or penalties is determined by the level of risk associated with the activity of a firm, and whether the private organization is well- or ill-intentioned in its actions.[47]

In summary, private firms require the knowledge to improve systematic responses to the prevention and mitigation of harm. They also need the motivation provided by groups within the organization (management and employees) and by outside interests (risk bearers and regulators) to act on their knowledge.

3.2.1.2 Contingencies for the Implementation of Accountable Self-Regulation

The Level of Risk

As discussed above, the regulator has at her disposal a variety of enforcement procedures. In a high-risk situation, different procedures will be applied than in a low-risk situation. Prohibition and improvement notices are used when hazards are serious, well recognized, and can be precisely defined and measured, and when the causes and consequences of alternative courses of action have been clearly documented. Notices of both types are designed to require firms to adopt better preventive and mitigation strategies than they are prepared to employ voluntarily. Regulators can employ a tough negotiating position which is legitimized by a clear moral mandate and a convincing body of scientific evidence.

When a firm's intentions are problematic, promotion and information or education are employed. Targeting becomes more essential as the risk increases. In case of a particularly high risk, custom designed tutelage may be necessary despite the cost; the firm must develop the ability to think for itself since not all options can be preprogrammed. The firm must be taught to design and redesign prevention and mitigation strategies. The less developed the capacity to manage high risk, the greater the need for targeting promotional materials (Baldwin, 1987). Thus, custom design by

both the regulator and the firm will be achieved with an educational approach by the regulator and is an appropriate response to activities carrying a high risk of harm.

The costs of education are justified when rules are not enough. Education is needed the more dynamic, the more hostile, and the more complex the environment and the mitigation methodologies.[48] Education is a prerequisite if firms are to become capable of moving toward accountable self-regulation.

When hazards are minor and the risk level is low, advice will be employed in response to lectures and orders issued by regulators. Mere negotiations might result in a promise to perform, but often the remedy in the event of failure to perform is not defined in advance. The omission of a follow-up audit impedes seriously the enforcement process. Advice, by contrast, consists of providing information, negotiating a solution and making provisions for monitoring the outcome. The role of the regulator becomes to specify what action is to be taken, by what time, and to gain the acquiescence of the firm through negotiations; he programs the firm's behaviour by spelling out brief, simple rules to be followed. Advice is appropriate when the regulator is dealing with well-intentioned but ill-informed firms.[49]

Corporate Intention and Cooperation

The enforcement strategy is determined, in part, by whether the actions of private firms are well- or ill-intentioned,[50] and on their knowledge. The material below refers to four categories of firms:

1. firms that are ill-intentioned and ill-informed;

2. firms that are well-intentioned but ill-informed;

3. firms that are well-intentioned and well-informed; and

4. firms whose intentions are unknown or unclear.

The section addresses the appropriateness of individual enforcement strategies in light of a firm's intention.

Prosecution is the enforcement strategy of choice for firms that are both ill-intentioned and ill-informed. The ill-intentioned or "bad apples" are those who will not change their behaviour despite the existence of an incentive system which makes it advantageous for them to do so. They form a population with whom negotiations always occur in the shadow of the law. In this case, the legal powers of the regulators must be made explicit.

Currently, a need exists for precise rules, addressed to inspectors, which can be carefully followed to ensure the systematic gathering of admissible evidence. With such rules, regulators could employ prosecution of ill-intentioned firms more effectively.

Those whose compliance is problematic will respond to an effective incentive system. However, adjustment of incentives in response to changes in behaviour must be very rapid if effectiveness of incentives is to be assured. Penalties must be harsh, rewards substantial, and both must be consistently administered if behaviour is to be changed. One can never forget that any change in behaviour is conditional on the incentives received rather than on penalties or incentives merely promised or threatened. Thus, it is essential that incentives received are monitored closely and adjusted continuously to minimize the cost of their provision and to maximize the effectiveness of mitigation efforts.

Advice giving, promotion and information can only be effective if the regulated is "well-intentioned". Yet, these enforcement strategies will only work if the rules and the enforcement system are defined as legitimate and authoritative. Too little probability of enforcement will lead to noncompliance. On the other hand, supplementary efforts by trade associations, unions and public interest groups can contribute to the legitimacy and authoritativeness of regulatory actions.

Gray and Jones' (1987) analysis of OSHA inspection data provide further evidence of the role advice giving plays in gaining compliance, while suggesting the extensiveness of the "well-intentioned but ill-informed" population. Their data show a large and significant effect of conducting first inspections. Such inspections generated an average of five citations. First inspections reduced overexposure violations by 42 per cent, while a second inspection reduced overexposure by 65 per cent.[51] Subsequent reductions were relatively small particularly after four inspections. On the basis of these data, Gray and Jones argue that inspectorial resources should be allocated to widespread advice giving; that is, the primary purpose of inspection should be to make firms aware of unmet obligations and a simple course of action which would enable them to come into compliance.

In some cases, the intentions of private firms are not clear. Nonetheless, cooperation is the value to be emphasized by regulatory inspectors in enforcing regulations. Scholz's analyses of OSHA inspection data support his argument that, to achieve compliance, the value of cooperation must be great enough to convince those whose compliance is unpredictable to forego the advantages of cheating. His work supports the view that a "trigger" strategy, in which the regulator threatens to end all future cooperation, is useful. If evasion exceeds a predetermined trigger, inspectors must be willing to respond to each evasion with escalating penalties or, if the firm changes its strategy, to stop retaliation immediately and become cooperative.[52] Concentrated

enforcement requiring considerable prosecutorial effort to generate voluntary compliance has been found to increase compliance.

When firms assign a high priority to mitigating a specific harm, then government does not have to inform, update or program the behaviour of the firm. As long as the firm continues to invest in information and expertise, and those providing it are able to ensure that their advice is consistently and rapidly implemented, regulatory intrusion is negligible. Thus, regulators need only to assess whether information and expertise are being used effectively. As well, they must authorize the prevention/mitigation strategy proposed by the regulated so as to ensure that the design provides adequate protection. The regulator maintains an ongoing responsibility to suggest improvements, demonstrate weaknesses and assist in problem-solving. Furthermore, he needs to continue to define strategies for supplementing the authority of safety advisors and to audit performance with an eye to fostering continuing and increasing investment.

Some firms will assign a high priority to preventing/mitigating specific harms under exceptional circumstances, namely those with a high probability of creating economic or political calamity. However, firms who do so cannot be regarded as "good apples," since they assign a low priority to preventing and mitigating other harms. Firms with high visibility and concerned with reputation are more likely to identify greater numbers of specific harms as having the potential for calamity, but will generally concern themselves only with mitigating those harms which are highly visible or whose risk is well established and not subject to extensive controversy. Therefore, one cannot generalize from a firm's preparedness to mitigate one specific harm to expecting investment in mitigating other harms.

Most often, the well-intentioned assign a low priority to preventing and mitigating harm. Such firms do not inform themselves about their legal obligations, about the available mitigation methodolgies, or about the trade-offs associated with each. Neither will they educate themselves by acquiring the principles needed to engineer effective prevention/mitigation techniques.

Within this group, limitation of harm will only occur if inspectors assume responsibility for programming and reprogramming the firms' behaviour. The inspector's ability to do so will depend upon the availability of clear, simple rules which do not require an understanding of the principles on which they are based, and cheap and simple procedures or technologies which can be adopted without redesign. Acceptance of these rules and procedures depends upon simple, persuasive demonstrations of what a change in behaviour will accomplish. Adoption will occur without the risk creator developing the diagnostic and design capabilities required when rules or procedures are to be refined or updated. In other words, firms who assign a low priority to prevention/mitigation of a specific harm can be expected to do exactly what the inspector demands and nothing more. A high probability exists that procedures will not

be followed reliably and that entropy will not be identified or corrected. To achieve a higher degree of reliability, regulatory surveillance and continuous monitoring will be required.

Attention to designing incentives, ensuring their reliable use, and rapid response to changes in the behaviour of firms is of critical importance. Scholz's data reinforce Braithwaite's (1985) emphasis on a need for a hierarchy of penalties, which would permit consistent increments and decrements in punishment and incentives in response to compliance and noncompliance. This finding suggests, for example, the potential contribution that a ticketing system could make as long as the penalties and incentives imposed consistently increased and decreased in response to changes in behaviour. The use of such specific enforcement techniques and incentive strategies presents one means of attempting to shift harm prevention/mitigation from low to high priority in private firms.

3.2.1.3 Summary

In the accountable self-regulation model, the regulator acts to assist private organizations in taking responsibility for harm control. The regulator educates others in designing systems suited to the prevention and mitigation of harm which are flexible and responsive to change. Ideally, within the system, performance is monitored and the regulator receives sufficient information on which to judge the level of compliance. When gaps in the system are evident and noncompliance occurs, the regulator employs an incentive structure appropriate to the risk level and the intentions of involved firms in attempting to gain compliance.

Relatively few firms are likely to employ accountable self-regulation effectively. To expand the numbers to whom this regulatory technique might apply, the proportion of firms believing that a specific harm could have calamitous effects for them must be increased substantially. As well, insurance against such calamity should not be available since the prospect of indemnification will reduce the necessity to invest in prevention and mitigation.

3.2.2 The Conditional Approval Process: Licensing High-risk Activities

3.2.2.1 Goals and Benefits

A great deal of high-risk activity outside the occupational health and safety area currently requires a licence. In Australia, however, licensing of individuals in high-risk

occupations is a form of occupational health and safety regulation as well as a technique for limiting the incidence of high-risk behaviour.

The rationale behind licensing high-risk activities rather than prohibiting them outright is that the requirement to obtain and retain a licence results in a conditional right to engage in the activity, which the state is entitled to remove should it deem the risk too great. This model of regulation can be termed a conditional approval process.

Licensing of the producers, their products, and of individuals engaged in high-risk activities is characteristic of pharmaceutical regulation, regulation concerning the safety of transportation equipment, nuclear technologies, toxic wastes, the securities industry, financial institutions, and hazardous products. Licensing justifies the government's preauditing of plans in an effort to maximize opportunities for prevention and post-auditing of outcomes so that the quantity and distribution of the resultant harm can be assessed.

A licensing approach can incorporate the positive compliance goals of preventing and mitigating harm. The conditional approval process approximates the drawing up of a contract between the public sector and a private firm. It basically defines the obligations on the part of each party, specifies the procedures for measuring whether the promised performance has occurred, and provides a procedure for assessing the acceptability of the performance. However, instead of specifying a remedy in advance, the "contract" is renegotiated should the private sector fail to meet its obligations. The need for a licence provides an incentive to the risk creator to adopt acceptable preventive and remedial technologies and procedures.

A conditional approval system has the potential to permit diverse interests to participate in the authorization process and in defining due diligence. However, in situations requiring extensive expertise due to the complexity and expense of the technologies and control routines involved, regulators should retain the authority to establish conditions. Otherwise, when conditions of consent are defined as policy setting rather than policy elaboration,[53] the executive branch of government and not the regulatory body will authorize the conditions recommended. Under such circumstances, the conditions may not address the need for prevention and mitigation adequately, and political and economic objectives may be assigned greater priority than increasing the responsiveness and reliability of harm control systems.

The conditional approval process provides the potential to custom design definitions of due diligence or to establish threshold design standards. It often requires openness regarding the terms of the agreement and of any amendments. There is considerable potential to permit the public to participate in defining the conditions for approval or to participate in critiquing a draft of such conditions before they are finalized.[54]

3.2.2.2 Applying the Power

Bargaining Tools

The risk creator's need for authorization provides the regulator with considerable clout in negotiations over the conditions of consent. The risk creator must convince the regulator that adequate prevention will be employed, that is, the proposed control technologies and routines will reduce the risk to a socially acceptable level. As well, the need for authorization strengthens the regulator's hand in efforts to negotiate advance commitments to mitigate harm should prevention prove inadequate.

The British water quality inspectors studied by Hawkins (1984) were able to use their responsibility for approving land use applications as a bargaining chip in negotiations to gain compliance with water quality regulations. Similarly, harbourmasters employed by the South Australia Department of Marines and Harbours, studied by Grabosky and Braithwaite (1986), must give permission if oil is to be pumped after dark. This privilege can be removed if a firm fails to clean up an oil spill or fails to take preventive action suggested by the harbourmaster. A permit is also required to take bunkers on board. Denying such permission provides a powerful sanction which harbourmasters have been prepared to use to bargain with noncompliants for immediate, voluntary mitigation. The ability to identify the potential clout that permits give regulators and to piggyback on the clout available to other regulators has been recognized as essential to effective use of the conditional approval process.

Preauditing Strategies

In setting conditions for consent, the following preauditing strategies are identified in the literature on high-risk activities:

1. Holding hearings to assess proposed design and/or past performance and past evaluation by experts and risk bearers, leading to a form of control exercised by those outside the firm.

2. Increasing the frequency of the audit by reducing the length of the licence. This also increases the degree of external control to which the regulated firm is subject.

3. Amending the approval to attach additional conditions of consent or specific performance standards to the licence. The regulator can substantially increase her clout in negotiating amendments if the power to grant permits is used effectively as a regulatory resource.

4. Subjecting the risk bearer to competition for licence renewal with the aim of improving the preventive and remedial undertakings accepted by the regulated as conditions of consent.

Auditing Outcomes

For auditing outcomes, the following strategies are appropriate to monitoring high-risk activities:

1. Issuing enforcement letters to risk creators, specifying the needed improvements in control technologies and routines. This strategy is similar to an improvement notice.

2. Lifting the licence until specified control technologies and routines are adopted or used in a more reliable fashion. This strategy is equivalent to use of an improvement notice and prohibition order.

3. Cancelling the licence of the professional responsible for administering safety routines. Examples of professionals held responsible in Australia for safety through certificates of competency include aircraft maintenance engineers, boilermakers, mine managers, crane operators, engine drivers, ship masters, and those operating radioactive sources.

4. Removal of the licence to operate, resulting in complete prohibition of the regulated activity.

On the surface, these strategies place less emphasis on advice giving, promotion and education than do the strategies usually employed in occupational health and safety regulation. However, the hearing to assess designs and past performance actually constitutes a forum for advice, promotion and education. In other words, this approach to regulation transfers these responsibilities from inspectors to negotiations with both the regulatory agency and the public prior to the hearings, and to the hearings themselves.

Granting the Conditional Approval

Like accountable self-regulation, the above strategies emphasize authorization and auditing, improvement notices and prohibition orders, but the strategies resulting from the emphasis on conditions of consent are considerably more elaborate. Through emphasis on the privileges granted by government on a conditional basis, the obligations the private sector owes to the public are clearly defined and their legitimacy is

established. The government offers incentives for compliance without infringing on the zone of privacy generated by individual property rights.[55] The conditional approval process is thus less intrusive for private firms than other enforcement strategies.

The conditional approval process creates circumstances which make it necessary for firms to acquire expertise. They need to acquaint themselves with regulations, gather and process technical information, and to select technologies and control routines which are acceptable to the firm as well as to society. Thus, at a particular point in time at least, the firm has an active interest in investing in expertise; however, such an interest may not last. Having created the incentive to invest in the design of a preventive strategy, the granting of approval may not ensure implementation of the strategy, or attention to mitigating harm not forecast. To increase the probability that the conditional approval process will ensure ongoing reinvestment, audits must be effective and multiple approvals, which are conditional on the adequacy of performance during the previous stage, are necessary.

The effectiveness of the conditional approval approach is affected by the level of risk involved in the activity, and by the extent to which ambiguity exists in defining components of the approval. For example, when design principles for prevention and mitigation technologies are unknown, the conditions for licensing become vague.[56] Consequently, harm may result and not be detected until licence renewal is pending or, if the targets of monitoring remain unclear, it may never be uncovered at all.

The Need for Proactive Auditing

When the conditional approval process is applied to high-risk situations, regular and comprehensive auditing becomes essential to maintaining compliance and monitoring harm control. Yet, auditing and enforcement are often not sufficiently effective and, as a result, conditional approval becomes a technique for suasion rather than an reliable form of regulation. For example, an authorization by the Australian Trade Practices Commission can be revoked but since the commission lacks the resources and, in its view, the mandate to act proactively, a hearing to consider removal of an authorization only occurs in response to complaint.

Grabosky and Braithwaite (1986), in discussing the conditional approval process installed to ensure safety in the design of automobiles, note that a compliance plate approval is issued after a prototype is examined for compliance with design rules. The manufacturer can then affix the plate to vehicles manufactured. The only after-the-fact monitoring, according to the authors, involves an audit of the manufacturer's quality control system every 18 months. There is no independent government testing of final products to ensure compliance.[57]

By contrast, a proactive approach to audit and enforcement is employed for the same process in relation to airplanes. In addition to preliminary audits of the design methodology, quality control procedures, and methods for demonstrating compliance with standards, tests are required to be witnessed by the source country's authorities; critical ones must also be witnessed by officials from the Commonwealth Department of Aviation. Test reports are audited by the Commonwealth. Furthermore, during construction "each step in the production process must be signed off by an officer employed by the manufacturer but responsible to the national airworthiness authority".[58] Following acceptance of the plane, airworthiness tests are conducted periodically and maintenance work is audited through random checks. Aircraft maintenance engineers can lose their licence for noncompliance.

The difference between the two approaches suggests that regulators assume airplanes to have a much higher potential for catastrophe than automobiles. Proactive auditing and enforcement seem to be reserved for activities posing a high risk to large numbers of people.

In the absence of proactive auditing and enforcement, the effectiveness of the conditional approval process as a mechanism for generating increased responsiveness is reduced substantially. This suggests that the regulator's calculation of the probability of catastrophe is an important contingency for the effectiveness of auditing and enforcement procedures. When catastrophe seems likely, auditing will not only seek to determine whether performance occurs in a reliable fashion, but will also look to increasing the effectiveness of routines and technologies so that prevention and mitigation will both improve.

3.2.2.3 Achieving Compliance through Risk Assessment: The Danger of Distortion

An activity's potential for generating harm will determine whether or not government regulation is required and whether available regulatory instruments, sanctions and incentives are authorized for use. The degree of consensus on definitions will determine the probability of successful prosecution, whether conditions of consent are contentious, and whether regulatory resources are allocated appropriately. The correct assessment of the risk factor involved in a given activity thus becomes a vital threshhold step.

Risk assessment is a process of forecasting harm which contains the following elements:

* identifying risks;
* quantifying the potential for harm;
* separating correlations from causes;

* defining and redefining principles for effective prevention;
* evaluating the relative effectiveness of competing methodologies for prevention;
* assessing trade-offs between cost and effectiveness which should be incorporated into definitions of due diligence or into definitions of socially acceptable risk; and
* assessing the need to mitigate existing harm and harm which proved greater than forecast.

Much of the debate over the relative effectiveness of criminal, civil, or administrative law as a tool for defining regulatory noncompliance centres around the test which is used to determine whether the harm generated is socially unacceptable, and whether penalties and/or remedial actions are required. The question of inherent prejudices arises, asking whether the test to be employed is designed to prevent false positives or negatives. That is, will the test err by detecting nonexistent harm, or will it fail to detect harm even when it does exist? The answer to that question will determine whether correlations between risk and harm can be used to establish legal liability and responsibility for mitigation, and whether such liability can be joint and several.[59]

Ross Cheit (1987) suggests that differing professional training affect risk assessors' willingness to tolerate false positives and false negatives. As well, the level and nature of professional training may determine when the individual is responsible for informing herself about risks and exercising due diligence, and when responsibility for providing information and ensuring protection against harm shifts to government. Given such differences, Cheit argues that private and public standard setters will develop different definitions of socially acceptable risks, since private standard setters are most commonly trained in engineering while public ones are usually educated in law.

As stated in Chapter Two, substantial investment in prevention will be undertaken voluntarily only when the potential for calamity is real. Therefore, eliminating any uncertainty over harm causation is a necessary, albeit insufficient, condition for improved prevention - particularly when preventive action is costly and complex to design. Evidence of actual harm created contributes heavily to the motivation for action.

Costly and complex preventive methodologies increase the probability that noncompliance will be forgiven, unless the risk associated with noncompliance is defined by the regulators as potentially calamitous. The regulatory reform strategy advanced by the Canadian federal government in 1986, for example, specifically stresses the need to limit regulatory costs and intrusiveness, and pleads for forebearance when costs and complexity of preventive methodologies are great. In this environment, the regulator is urged to prevent false positives instead of preventing false negatives. The conditions of consent thus negotiated and the allocation of regulatory resources generated in response to such advice will promote the interests of risk creators at the expense of risk bearers; regulators will be creating winners and losers rather than managing interdependence.

Under such circumstances, informed risk bearers are likely to believe that more effective protection can only be achieved by limiting regulatory discretion. Adversarial relations and pressures for overcontrol are likely to result, as positive compliance programs become unacceptable to risk bearers.

3.2.2.4 Command or Consensus: Choosing the Right Path

If the regulator's attention is shifted from forecasting risk to measuring and mitigating harm, the incentives for risk creators to invest in prevention are increased and positive compliance programs are more likely to be defined as beneficial to risk creators and risk bearers. This process also increases regulatory accountability for the quantum and distribution of harm, reduces reliance on standardization, and emphasizes the costs borne by the risk bearers when trade-offs are negotiated.

Designing remedies and assessing their effectiveness is a regulatory task which emphasizes the regulator's professional skills and recognizes the need for regulator and risk creator to work in concert on design and implementation, especially when prevention and mitigation are costly and complex. In the latter situation, there is need for both the public and the private sector to authorize decisions and audit outcomes so that both public and private resources can be utilized efficiently. Close cooperation between sectors, or "tight coupling", is to be contrasted with "loose coupling," where little coordination between parties or sensitivity to each other's concerns exists.

If "tight coupling" between the public and private sectors is recognized and mutual adjustment rather than standardized rules are employed when coordinating public and private sector actions, regulators will be able to give advice rather than orders,[60] which in turn would oblige risk creators to justify failure to take such advice rather than allow them to challenge regulatory legitimacy. Tight coupling also permits a high tolerance of risk; since neither party can act independently of the other, there is sufficient assurance that risk creators will be obligated to mutually adjust with risk bearers.[61]

Positive compliance programs employ an approach to managing risks which differs fundamentally from command regulation, and which rejects both the assumptions of scientific management and the bureaucratic structures based on those assumptions.[62] Instead, it adopts the assumptions of general systems theory and the flexible structures based on them.[63] Loose coupling among risk creators, risk bearers and regulators is replaced by tight coupling. Ongoing consultation among the parties produces decisions in which all have participated, and which all are committed to implement. Such consultation replaces rigid rules and systems of externally imposed error detection and control.

When control technologies and routines are simple,inexpensive, and effective , command and control regulation is appropriate. Under those circumstances, promotion can be used to ensure widespread dissemination and adoption of control technologies and routines.

Custom designed regulation is needed when the costs and complexity of design are high in an absolute sense, or because the resources of the risk creator are very limited. Under such circumstances, tight coupling is needed not only between the regulated and the regulators but among the risk creators, risk bearers and the regulator. When thus managing interdependence, the regulator emphasizes mitigation and prevention, that is, the quantum and distribution of harm between the risk creator and the risk bearer. Negotiations among the parties should be designed to achieve the most effective prevention and mitigation at the lowest possible cost to all parties; the regulator should be accountable for the outcomes of the negotiated agreement. Systematic measurement of those outcomes and the development of a performance control system, which rewards risk creators and regulators for reducing both harm and the inequities of its distribution, are of critical importance if positive compliance is to prove beneficial.

3.3 Consumer Protection and Human Rights Regulation

3.3.1 Using the Costs of Mitigation as an Incentive

Consumer protection and human rights regulation seek to remedy and prevent harm which actions of businesses or persons have inflicted on consumers or applicants. This form of regulation focuses on mitigation, and its advantage is that the incentive to develop preventive strategies is often created by the costs of mitigation.

For example, the Automobile Defect Total Redress Program, developed by the Federal Trade Commission in the United States to deal with prematurely rusted fenders, required total redress on the part of Chrysler. Car owners did not have to go to court to be eligible for redress; their eligibility could be determined by observing the rust and mileage. The obligation to indemnify consumers for the harm generated costs which encouraged Chrysler to invest in technologies for preventing premature rusting.

In the case of General Motors and Volkswagen automobile transmissions, however, eligibility was more difficult to define. Binding arbitration was imposed on the companies, not on the consumer. Such arbitration permitted fairness to business on big ticket items at relatively little cost to the consumer - without greatly reducing the consumer's access to the remedy. The need for costly arbitration was determined by the cost of the remedy, and by the possibility that other variables might have caused the

harm to be remedied. The costs awarded through arbitration promoted increased investment in quality control and design by the risk creators.

3.3.2 Determining the Appropriate Remedial Action

In the above cases, the companies' quality control system was inadequate, resulting in large numbers of risk bearers experiencing the same harm. Thus, a constant remedy could be employed; the only issue was whether there was joint liability with the consumer for particular problems. However, in other cases, an appropriate remedy may not be as clearly defined. Take, for example, the issue of an appropriate remedy for loss of potential lifetime income due to systemic discrimination. The harm borne and the appropriate remedy may vary from one employee to another, necessitating custom design of the remedy.

Because consumer protection and human rights regulation emphasize remedial action over forecasting risk, attention is focused on the design and implementation of remedies. A risk creator's incentive to take preventive action increases with his certainty that a remedy will be consistently imposed and full implementation will be required. This approach fits more closely with positive compliance because prevention is "pulled" by the incentive system rather than "pushed" by regulations, but the determination of liability must be consistent and full implementation of negotiated mitigation agreements must be ensured. Noncompliance cannot be forgiven without reducing the effectiveness of the incentive system.

Negotiating a suitable remedy is the major task faced by consumer protection and human rights regulators. But, as Grabosky and Braithwaite emphasize, the concern with custom design or the use of a case by case approach often interferes with tiering.[64] In the individualized approach, resources are wasted unnecessarily and fairness is reduced.[65]

The specific strategy employed in negotiating a remedy is affected by "the legal footing of the consumer".[66] The shakier the legal footing, the more likely it is that emphasis will be placed on mediation of the dispute. Mediation may also be employed in an effort to increase the probability of full implementation, on the assumption that a process which allows all parties to present their worst case scenarios will be more likely to achieve a settlement acceptable to all. Mediation seeks to have the mediator define the obligations of the parties on the basis of her understanding of what is acceptable and unacceptable to the parties. Use of a mediator is a substitute for direct, ongoing negotiations between reciprocally interdependent parties; mediation seeks to achieve the benefits of tight coupling where none exists. It is appropriate when relations are not ongoing or the parties are unable to communicate effectively and are in need of a go-between.

The downside of mediation as a tool for remedial action is that it assumes that the parties at the table are the only ones who will bear the costs and benefits of the agreement negotiated. Spillover effects are deemphasized. As a result, regulatory agencies are discouraged from looking for "patterns of complaints which might be solved in one fell swoop by negotiating with a company or industry association".[67] Mediation is often a very inefficient, as well as a potentially unfair, way of restructuring relations between consumers and traders, or between minorities and those making allocative decisions. In particular, the public interest in the settlement negotiated is often underestimated, since the regulator often assumes the role of mediator rather than representing the interests of the public.

3.3.3 Co-regulation

Co-regulation presents an approach which is common in Britain and Australia. It seeks to promote close coupling among companies within the same industry, and between government and business, so that advice giving can replace giving orders. There is no public involvement. In co-regulation, tight coupling is employed not to reduce risk but to increase efficiency by dealing with an industry as a whole rather than with each individual company separately. The approach aims at getting industry to work jointly with government to agree on codes of ethics and business practices, and to give industry associations themselves the means to enforce them against their members.[68]

The Australians have been particularly aware that self-regulation without accountability "can be a double-edged sword, because as well as being vehicles for improving business ethics, trade associations can be vehicles for enforcing restrictive trade practices (e.g. price fixing) which are against the consumer interest".[69] It is for that reason that the Australian Trade Practices Commission must authorize self-regulatory schemes.

Working with trade associations can be very useful when the regulatory instrument to be used is promotion, that is, convincing risk creators to adopt simple, inexpensive packages of standardized control practices. Effective promotion requires a sensitivity to the particular constraints faced by that industry and an ability to communicate in terms which are comprehensible to top management and all employees within that industry.

Trade associations can also assist regulators by proposing standardized rules and codes of practice appropriate to the organization of the industry. Yet, it is critical that risk bearers participate in evaluating those rules prior to authorization and that they have both unimpeded access to data on outputs and the ability to require reauthorization in response to negative feedback. Existing consumer protection and human rights legislation tends not to provide these prerequisites for effective mobilization of trade

associations. Thus, for example, the Australian Trade Practices Commission places on the public record neither the data reported to it nor its staff's interpretations of those data. Denied access to such data, which are rarely gathered systematically in any event, risk bearers are still required to demand reauthorization before changes will be implemented.[70]

3.3.4 Other Incentive Strategies

Licensing and access to government contracts are incentives which may be used as alternatives to prosecution of the ill-intentioned. Thus the British Fair Trading Office uses threat of withdrawal of a licence under the Consumer Credit Act to sanction misconduct particularly in the motor trade. Deeds of assurance (orders to desist from specific practices) are also available to regulators seeking prevention of further harm.

Publicity is another regulatory instrument often used alternatively as a reward for exceptional performance and as a punishment for continuing or potentially calamitous noncompliance. The ability of regulators to arrange for the widespread dissemination of the names of companies employing unscrupulous practices can result in a short-term reduction of their clientele. However, the long-term consequences for business are probably not great. This sanction is most effective when it can affect the behaviour of large, long-term customers/clients.

In assessing the potential effectiveness of publicity, the importance of its reputation to the organization concerned must be assessed. For a blood bank, in light of the AIDS scare, reputation would be of critical importance. For a fly-by-night operation, on the other hand, it is easy to change the name of the business since repeat sales are irrelevant. In general, publicity will be of limited use as an incentive to encourage greater prevention and mitigation.

3.4 Environmental Protection Regulation: A Hybrid

3.4.1 The Regulator as Fiduciary for the Environment

One of the reasons so much attention has focused on environmental regulation is that it is a forum which has sought to use all of the regulatory techniques employed in the fields of occupational health and safety, consumer protection, and human rights. In addition, the goal of this regulation is to promote prevention and mitigation of harm done not only to human beings but also to the ecosystem. As Stone has noted, our legal system is based on homocentric assumptions. Consequently, the common law characteristically advantages property interests with little regard for the consequences

borne by the ecosystem. As a result, the ecosystem requires fiduciaries or trustees who will bargain for its benefit particularly when the interests of the environment conflict with those of people.

Those engaged in environmental regulation are expected to be a fiduciary for both the ecosystem and for the social and economic concerns of the harm creators and harm sufferers. While concepts such as sustainable development are designed to emphasize the potential for harmony between ecocentric and homocentric priorities, the potential for divergence is often great.

3.4.2 The Need for Openness

Environmental regulation reflects the multiplicity of public interests and the inability of regulators to represent each adequately. The need for broad participation in the design of an audit system, assessment of its effectiveness and redesign is evident: government is not capable of providing the sole definition of the public interest. As a result, openness of the regulatory process is of critical importance. Freedom of information, ease of access to data and the financial ability of risk creators to acquire the expertise needed to effectively analyze and use the information must be assured if regulatory effectiveness is to be achieved.

Environmental regulation employs conditional approval processes to assess the risk of proposed actions to the environment and to people. Assessing risk to the environment requires risk creators to adopt different assumptions than those traditionally employed by businesspeople, and to ask whether their development might be restructured to generate more benefits for the ecosystem. Environmental regulation forces people to address systemic discrimination and methodologies for remedying such discrimination.

3.4.3 Redressing Systemic Discrimination

If harm control design is to be effective, it is crucial that the pervasive bias present in examinations of environmental situations be addressed. The concept of systemic discrimination recognizes that performance may lapse not because of any individual fault, but because our perspectives are too narrow and our institutions biased -- the economic development of Northern Canada, for example, is preferred to its socio-cultural integrity.

The concept of systemic discrimination thus serves to promote a much broader view of remedy than currently taken by contract law, for example. Contract law seeks to compensate individuals or institutions when they enter into obligations which they cannot

fulfill because of limited resources. Remedial action is needed when a change in the priorities of the individual who has assumed an obligation interferes with performance. In contract law, the concept of remedy is restricted to the mitigation required to redress the injury caused by the individual promising performance he cannot or will not deliver.

In an environment where systemic discrimination prevails, the remedies required if recurrence of harm is to be prevented are substantial. The objective need therefore must be to eliminate systemic bias, and not merely to compensate those previously harmed by it; more than administrative law is needed if fairness is to be achieved. As such, environmental regulation constitutes a better model than human rights regulation for affirmative action, since the emphasis is not on individual compensation but on restructuring institutions to eliminate bias.

3.4.4 Accommodating Private Enterprise: The British Approach

The British approach to environmental regulation is based on elite accommodation, and as such open to charges of systemic discrimination. Close coupling exists among business, government and the financial elite and only loose coupling between these elite groups and those they command. Under these circumstances, the coordinating mechanism used is mutual adjustment, but only between business and government elites, while the coordinating mechanism between the business elite and other businesspeople is standardization through rules, or control through an effective internal system. Since business and governmental elite rapidly respond to feedback from one another, while ignoring feedback from those not "part of the club", only the governmental elite remains to represent the public's interest. There are no alternative fiduciaries for the ecosystem.

In addition, the planning process and commissioners of inquiry tend to adopt homocentric rather than ecocentric assumptions, further aggravating systemic discrimination. Procedures in these processes do not require proponents to take an ecocentric approach or to address the issue of whether development could be restructured so as to reduce the harm to the ecosystem. Thus, remedies are narrowly defined.

3.4.5 Incentives and Standardization: The United States Approach

An analysis of American environmental regulation reveals that the Americans seek to encourage innovation by defining what is to be done and when, without specifying how. The *Clean Air Act*, for example, established a December 31, 1987 deadline "for states to meet health-based standards designed to curb the smog producing ozone coming from a variety of sources, including trucks and automobiles".[71] The Act

specified what was to be done, and by when, but left the choice of methodologies up to the states. The American legislation devoted considerable attention to the design of incentives and provided for substantial loss of privileges on the part of states which did not comply, including bans on construction and loss of federal highway and sewer money.

Given the organization of the political and economic systems within the United States, concertation cannot be expected; accordingly, the American approach to regulation emphasizes the design of sanctions, and standardization where possible. Robert Reich, in discussing the assumptions of scientific management, argues that this approach was developed partly to increase fairness by decoupling the political and economic systems. Once decoupling occurs, politicians can only give orders to businesspeople; they cannot give advice. They give these orders, e.g. for standardized control technologies, through regulations, because standardization is a control mechanism which can be employed when the distance between the parties prevents mutual adjustment. Relations between business and government have thus become standardized as have relations between professional managers and their employees.

Americans have been particularly concerned with the design of the incentive system. Much of their experimentation in the area of environmental regulation has centred not on evaluating the relative effectiveness of regulatory instruments, but on developing alternative approaches to calculating and administering penalty and incentive systems. They have used civil penalties based not on the seriousness of the offence but on the savings realized by a firm as a result of noncompliance. The task of defining ability to pay is performed systematically by a computer rather than intuitively by a regulator. Those convicted of criminal charges under the Clean Water and Air Acts are automatically prevented from qualifying for federal contracts. The Americans have also employed preprinted violation forms to increase the collection rate on administrative orders, and have rebated part of the fines if firms undertook innovative approaches to deter others from violating standards.

Vogel (1986) emphasized the distinction between the American emphasis on standardization, which seeks to change behaviour through promotion, and the British emphasis on elite accommodation, which leads to mutual adjustment between regulators and industry. Standardization involves defining what is to be done and how; the British, he argued, define what is to be done and when, leaving design up to the firms. Applying performance rather than design standards expands the options available to firms, permitting them to select the option which most closely fits their particular constraints.

However, a review of the literature suggests that the Americans also leave room for innovation. In general, the American approach devotes considerable attention to the design of incentives whereas the British legislation does not. That is, the British do not

utilize the incentive system as a tool for generating compliance the way the Americans do.

Consideration of alternatives is a substantial benefit of regulation often overlooked by those seeking deregulation. It is this potential which regulatory reform should address. The federal government's promotion of international competitiveness shares a common objective with the ecocentric approach. The objective is not to change the cost structure; rather the goal is to transform the underlying assumptions and the institutions. Environmental regulation demonstrates that the regulatory process, when properly structured, can contribute to this essential economic task.

3.5 Summary of the Sectoral Approaches to Positive Compliance

By various methods and in various operational models, positive compliance programs are aimed at achieving the prevention and mitigation of harm. The models discussed above share important aspects and concepts. Accountable self-regulation and conditional approval, for example, both depend on the input of private firms, the public and the government into designing standards and technologies. The three parties need to share information if feasible control strategies are to be implemented, and they all must be involved in the evaluation of the impact of procedures on their different interests. In positive compliance programs, effectiveness is a product of the concertation among interested parties and the fulfilment of the responsibilities assigned to each party.

The selection of strategies for positive compliance models is affected by a number of circumstances. Cost is always an important consideration, especially for the risk creator. However, it cannot take precedence over harm control or else positive compliance will not achieve its primary aims. The most important factor to consider in the selection of compliance strategies, however, is the level of risk and harmful consequences associated with the activity to be regulated. When risk is high or consequences substantial, the approach should focus on changing the systematic operation of the risk creators. When risk and consequences are low, immediate steps must be taken to reduce specific harm, but general change is not required. Whether ill-intentioned or well-intentioned, private firms require the assistance of regulators and the public in maintaining prevention and mitigation of harm as a high priority.

When there is a high risk of harm, such as in certain sectors of environmental development and occupational safety, the roles of government and the public are to:

1. monitor continuously;

2. bargain for the best available protection;

3. impose the obligation to mitigate harm on the risk creator; and

4. ensure that the risk creator assigns a high priority to risk reduction.

The role of the risk creator under the same circumstances should be to:

1. engage in self-monitoring so that increments in risk are rapidly controlled, and entropy in the risk control system is counteracted rapidly;

2. ensure continuous access to design capacity so that redesign can occur rapidly, effectively, and efficiently;

3. develop the ability to act quickly on proposals to improve the design of the risk control system, and implement the redesign speedily and effectively; and

4. assign a high priority to risk control so that the resources required for monitoring, design and implementation can be rapidly mobilized.

When there is broad consensus that the risk is high, education is needed to raise the risk creator's consciousness and to provide the design capacity required. Regulators should have the expertise to direct educational efforts. When assessments of the degree of risk differ, the design of the incentive system becomes critical to consciousness raising.

Assurance that risk creators are consistently held responsible for mitigation and that the costs of mitigation are highly publicized is essential to the design of an incentive system. Again, regulators can play a major part in exercising the pull that must be exerted on risk creators to undertake preventive action voluntarily. Under high-risk conditions, predefinition of the obligation to mitigate both intended and unintended harms is likely to increase the pull to more effective prevention.

When risk and consequences are low, risk creators are unlikely to assign a high priority to controlling risk and to engage in self monitoring. They will generally lack access to design capacity and are unlikely to have an effective risk control system or the capacity to redesign such a system in response to changing circumstances. Because the priority attached to risk control is low, information on risk will not be sought nor acted upon if provided. If risk control is to occur despite the low priority assigned to it, it must be commanded. In the absence of company internal design capacity, the government and the public must assume responsibility for installing a risk control system, monitoring its effectiveness, and redesigning that system when required.

In a low-risk, low-consequence situation, compliance will only occur if it is inexpensive, simple to understand, and demanded by the authorities. Advice will not be sought; therefore, it must be offered. Education would be inappropriate if there is neither the interest nor the necessity for acquiring design capacity. Promotion is an alternative here, but must be carefully targeted. The incentive structure must recognize that the risk is low and that noncompliance derives from a firm's priorities, not from bad intentions.

4.0 THE ROLE OF THE REGULATOR IN POSITIVE COMPLIANCE PROGRAMS

4.1 Introduction

Positive compliance programs require a clear definition of the outcomes to be achieved. By clearly outlining and publicizing the anticipated outcomes, the regulatory body creates very precise performance standards against which its own performance can be measured. Yet, such standards can only be used to evaluate performance if the regulatory body can operate relatively independently of the crown, the courts and the politicians. The measures will only be valid if there is a low degree of external control, or a high degree of consensus and close coordination between the regulatory body, the crown, the courts and the politicians.

One of the advantages of a performance control system, on the other hand, is that it provides a form of accountability which permits the regulatory agency to determine for itself how it will achieve the targets set while providing it with autonomy over methodology. Autonomy over methodology is of critical importance to a positive compliance program, since it reduces the probability of overcontrol. The establishment of specific targets, at the same time, reduces the likelihood of undercontrol. Autonomy over methodology lets regulators use their professional expertise to achieve their targets, while the targets themselves should help limit the amount of noncompliance that is forgiven.

The discussion that follows outlines the role of the regulator within this environment. Using the groundwork laid in Chapter 3, we can begin to identify the roles regulators play in positive compliance programs and the contingencies affecting their position. The discussion will examine the regulator's role during the various stages of regulation, look more specifically at her actions and options in the enforcement process, and will finally explore the element of intrusiveness inherent in the regulatory managing of interdependencies between parties. Throughout, the regulatory tools and instruments (legislation, hearings, licences, notices etc.) will be considered as a vital element in the realization of the regulator's function.

4.2 The Regulator's Role in Different Phases of Regulation

The roles regulators are required to play depend upon the stage in the regulatory process in which the regulator is operating. At least three distinct stages in the process exist:

1. diagnosis/risk assessment;

2. system design; and

3. monitoring.

In overseeing the process, the regulator may assume partial or full responsibility for five key roles: she can be an investigator, interpretor, advisor, teacher, and evaluator. These roles will be discussed in conjunction with the regulatory instruments that facilitate the completion of each phase.

4.2.1 Diagnosis/Risk Assessment

The most important determinant of the regulator's role is the level of the risk or the potential consequences of the activity to be controlled. The first task of regulators is therefore to assemble and assess the data on the magnitude of the risk, the severity of the consequences, and the distribution of existing risk as well as to consider forecasts about expected changes in these areas. These data will identify the risk bearers for the regulator and will clarify the distribution of risk among them.

Having identified the risk bearers, the regulator's next task is to identify the risk creators and the relative contribution they make to existing and future levels of risk and potential consequences. Often, information about risk creators and the effectiveness of their internal control systems can be obtained simply from a "walk-around". On the basis of these data, the regulator can determine how much change in the existing and expected growth patterns is needed to provide a socially acceptable degree of protection to risk bearers: will curbing the growth of risk and the severity of consequences in future be adequate, or must existing levels of risk also be controlled?

Through this process, tentative targets can be set, but it is essential to remember that the targets are based on forecasts which may not be accurate. Regulatory targets define the minimum degree of prevention and mitigation needed to achieve a socially acceptable degree of protection for risk bearers. It is essential, then, that the forecasts be continuously monitored and the targets adjusted accordingly.

During the diagnosis/assessment phase, the regulator adopts the role of investigator. Her primary emphasis is on the gathering and sorting of information in order to describe and assess the environment in which activity takes place.

4.2.2 Systems Design

4.2.2.1 The Regulator's Task

Once the quantum of risk, the severity of the possible consequences, and the potential effect which prevention and mitigation might have on the nature and probability of harm have been assessed, the next phase involves the development of a control strategy or system. The strategy should address how control efforts are to be distributed among risk creators and how the outcome will be spread among risk bearers. The regulator must also forecast the potential costs and loss of benefits if risk remains uncontrolled. Again, the accuracy of the forecasts must be monitored continuously and adjusted accordingly.

When allocating resources, regulatory programs must determine how much attention will be devoted to controlling creators of high, moderate and low degrees of risk with minimal, substantial and severe potential consequences for harm. This determination is critical because, as discussed in previous chapters, different methodologies are required depending on the degree of risk/severity of consequences. The greater the risk or severity of consequences, the greater the need to develop and refine diagnostic and design skills, so that when self-monitoring reveals rising risk levels, appropriate strategies can be devised and implemented rapidly. The need for a rapid response to unpredictable events reduces the ability to standardize responses and increases the need for diagnosis and custom designed control strategies.

4.2.2.2 The Regulator's Role: Interpretor, Advisor and Teacher

Developing and refining diagnostic and design skills is a difficult task, requiring teaching and advice giving rather than promotion, an approach which can be used effectively only when risk levels are relatively low.[72] Consequently, in this phase the regulator may be called upon to fulfill the roles of interpretor, advisor and teacher. The regulator should be able to communicate assessment findings and their implications for future development to interested private and public parties. She should then be able to provide advice on the control options presented and the obstacles to their achievement. The regulator may also be expected to propose variations which may make proposals more acceptable. At this point, she may need to draw upon the experience of other risk creators to clarify and resolve issues. In addition, the regulator needs to identify those components that are acceptable and those that are not, so that the plan can be refined accordingly.

4.2.2.3 The Regulator's Instruments

In her role as an interpretor, the regulator will be called upon to explain legal obligations and to promote the development of greater consensus between risk creators and risk bearers; this task requires appropriate regulatory instruments. These may include verbal and written warnings, threats to withdraw administrative privileges, and even bluffing - made possible by the risk bearers' ignorance of the actual legal authority of the regulator.[73]

The regulatory roles of interpretor and advisor also involve a variety of forms of mediation among interests in the search for a definition of obligations acceptable to both risk bearers and risk creators. Alternative dispute resolution techniques are being used with increasing frequency to facilitate the development of consensus at this stage. Third parties may act as a catalyst for private negotiations. The umbrella term "alternative dispute resolution" includes fact-finding, possibly investigation by a neutral expert selected by the parties to deal with complex technical matters and to break a log jam. This technique is particularly useful when matters require analysis of detailed documents, for example in the area of cost recovery. It is also used by the American Environmental Protection Agency to determine which companies contributed how much waste of what kinds to a long closed dump site.

The regulatory instruments associated with the regulator's role as teacher are perhaps the most controversial. British regulation, particularly regulation under the aegis of the Health and Safety Executive, emphasizes the teacher role.[74] Yet, because of the severity of the risk which encourages use of this costly regulatory approach, violations must be carefully identified and their seriousness impressed upon the risk creator. The risk creator must be very clear that there is a strong moral mandate to control risks and that failure to perform these obligations will be met with severe sanctions such as large fines, loss of administrative privileges, loss of licences, jail, or occupational disqualification. Education must occur in the clear shadow of the law and thus prosecution must be viewed as certain should obligations be met inadequately.

4.2.2.4 Summary

Systems design and development involve numerous steps which require the regulator to interpret and advise. Extensive feedback is required if the risk creators are to develop design and diagnostic skills of their own; there must be close coupling between the regulator and the risk creator while these skills are being developed. Considerable resources must be invested in this phase, based on the belief that if skills are acquired and refined much less interaction will be required in the future.

4.2.3 Monitoring

4.2.3.1 The Regulator's Task

The monitoring phase begins after a system has been implemented. The regulator proceeds to assess what has worked and what has not. She performs an audit of the outcome and provides a rationale for any evaluation comments. The risk creator uses this information, as well as information about the return on investment generated by the expenditure, to redesign the system to increase its efficiency and effectiveness.

Once the regulator is convinced that the risk creator has acquired diagnostic and design capability, her task becomes to audit the system so as to maximize its responsiveness to risk bearers' concerns, and to audit outcomes to ensure that risk bearers have received the promised prevention and mitigation. The regulator also continues to provide advice, but the number of tasks assigned to her declines, while the tasks of the risk creator increase substantially.

4.2.3.2 The Regulator's Role: Auditor and Inspector

If data are to be gathered as a basis for certification or assessment of competency, regulators take on the role of inspector in three distinct forms of auditing:

1. compliance evaluation, a procedure involving a walk through and review of records;

2. performance audit inspection, which involves inspection, sampling and lab analysis; and

3. compliance sampling inspection, which requires independent sampling and analysis.[75]

Once data have been gathered, they must be interpreted, their validity checked, and a decision must be made as to whether the risk creator is to be labelled as compliant or noncompliant.

One of the differences among these three forms of auditing is the degree of discretion each gives to the inspector in deciding how to categorize the risk creator. Performance compliance sampling affords the regulator the least discretion; compliance evaluation allows considerably more. However, with increasing computerization, objective results from the audit are compiled which reduce the inspector's opportunity for discretionary forgiving of noncompliance.

4.2.3.3 The Regulator's Instruments

Relying on inspection to evaluate compliance results in reactive measurement and intermittent rather than continuous monitoring of behaviour. Concerned about this consequence, the Americans are developing a new regulatory instrument: computerized monitoring systems. One system under test by the Engineering Research section of EPA involves using sensors to monitor each chemical emitted. The sensors are tied into the computer permitting continuous monitoring.[76] Such technologies seem particularly promising for monitoring hazardous wastes. If the technology can be developed adequately, an effluent charge system might become feasible.

The auditing of designs, prototypes, the quality control system, the performance of the product in tests prior to and after marketing, are all regulatory tools available to the regulator. This form of intense auditing is more characteristic of airplane safety regulation and pharmaceutical regulation. Intense use of preauditing also characterizes meat and poultry regulation.

Many of the activities of auditors of performance centre around licensing rather than inspection. Companies engaged in high-risk activities such as transporting hazardous wastes or exporting meat may be required to obtain a licence permitting them to engage in these activities. To obtain a licence to transport hazardous waste in the state of New Jersey, for example, a firm must certify that neither the it nor any of its employees have ever been convicted of illegal storage or transport activities. Convictions result in automatic revocation of the licence.[77] Checks on the criminal records of office holders are commonplace requirements for licensing of firms engaged in high-risk activities.

If licensing is to control entry effectively and to promote due diligence, it is important to ensure that the process is organized so that information on disqualification is broadly transmitted and readily available across jurisdictions. As long as the possibility exists for individuals and companies to change their names, the control exercised through licensing will be reduced. Licensing is likely to be more effective when reputation is important; it thus is more effective the more professional the licencee's occupation, and the more important past performance is to current evaluation.

4.3 Variance of Regulatory Roles and Instruments According to Risk Level

4.3.1 High Risk Situations

When risk/consequences are high, we can summarize the roles regulators may play as follows:

1. Investigator - gathering and sorting information about the environment or situation;

2. Interpretor - communicating legal requirements and the concerns of risk bearers to risk creators;

3. Teacher - developing skills on the part of the risk creator which enable him to identify whether legal obligations are being met and to define what action is necessary in order to meet those obligations;

4. Advisor - identifying options available for meeting obligations efficiently and effectively and specifying the advantages and disadvantages of each;

5. Evaluator - assessing whether a plan of action and/or performance meets legal obligations or criteria for eligibility for incentives.

When risk is high, licensing is often employed as a regulatory instrument. Licensing may assign the regulator roles similar to those set out above:

1. Assessor of competency - asking whether the risk creator has the expertise and the control systems required to undertake a given activity;

2. Evaluator - assessing whether a given plan of action and/or performance meets the eligibility criteria.

When licensing is transformed into a conditional approval process, the following roles may be added:

3. Custom designer of definitions of due diligence - refining definitions of obligations to better fit the concerns of risk bearers and the competency of risk creators;

4. Auditor of performance - establishing whether performance meets the current definition of due diligence and whether mitigation is required;

5. Designer of remedies - defining obligations which must be met so that the consequences of nonperformance or inadequate performance do not fester or multiply.

4.3.2 Low-risk Situations

When risks/consequences are low, regulators are responsible for designing and promoting simple, cheap, and easy to implement control practices. In this case, the regulator identifies standardized packages of such control practices and technologies and gives information to risk creators about the risk they are creating. They are informed of the costs, the perspective of the risk bearers, and the legal responsibilities associated with their actions. Risk creators are shown how to identify symptoms which indicate that controls are losing their effectiveness, and receive information about how to get diagnostic and design assistance when revision is needed.

As promoter, the regulator relies extensively on warnings that a risk creator is out of compliance, negotiates timetables for meeting regulatory standards, employs standardized administrative fines, and threatens or promises reinspection to ensure that compliance has been achieved. All of these instruments are used to convince risk creators to adopt standardized techniques for achieving compliance.

The promoter may also mobilize risk bearers to monitor the behaviour of risk creators and to act as supplementary monitors. As the United States Comptroller General stated in 1985, "the best deterrent is half a billion watchful eyes".[78] This technique requires a simple definition of the harm being created, a clear description of the behaviour one should report, and a simple way of reporting. The EPA in the United States used this method in Los Angeles County to identify hazardous waste that had been illegally dumped, and in the fall of 1987 consultants for the EPA were developing a program for enforcing regulations dealing with underground storage tanks.[79] While failed citations were being used for dealing with risk creators, outreach programs, videos, newspaper ads were used to reach both risk creators and risk bearers. In California, this form of promotion was most successful in convincing employees of companies illegally dumping hazardous waste to report occurrences. Of 36 reported cases, 28 were prosecuted and resulted in convictions for missing to study cited in 76.

The above approach does not require the risk creator to develop an effective internal control system, in fact he is asked to make very few changes in operating procedures. As a result, the approach is much less intrusive than that used when dealing with creators of higher risks. If reducing regulatory intrusiveness were the sole goal of regulatory reform, promotion would be the preferable strategy. However, it is unattractive to risk bearers because it stresses responsiveness to the need for standards redesign without increasing the reliability of control methodologies.

4.4 Regulators as Enforcers

4.4.1 The Use of Discretion: Reward or Punishment?

Up to this point, regulation has been discussed without consideration of the design of incentives for compliance and without addressing the enforcement role assigned to regulators. The role of enforcer gives the regulator responsibility for deciding when obligations will or will not be enforced. Noncompliance will either not be identified or, if identified, may not necessarily be subject to rewards, penalties, or obligations to remedy harm resulting.

When the risk or seriousness of potential consequences is high, enforcement must be consistent and noncompliance with definitions of due diligence must be minimized if the interests of risk bearers are to be protected adequately. Therefore regulators should justify publicly the reasons for forgiving noncompliance and not enforcing some obligations, that is, the benefits expected from trading off protection for risk bearers must be spelled out.

Incentive systems should be designed to affect the priorities of risk creators, to transform expenditures into investments, and to generate a rate of return that justifies the cost of improving control systems. The greater the expenditure required to control harm, the greater must be the punishment if nonperformance or inadequate performance occurs. Punishment and reward must be proportional to the costs of control and mitigation, not proportional to the risk creator's ability to bear such costs.

A close fit between the evaluation rendered and the reward or punishment received is essential to the achievement of regulatory objectives. Failure to deliver the punishment or reward will reduce the return on investment generated by control expenditures, and lead to a decrease in the priority a risk creator attaches to improving the reliability and responsiveness of his internal control system; regulatory effectiveness will be undermined as a result. In summary, the way in which obligations are enforced will determine the magnitude of the incentive for risk creators to invest in control methodologies.

4.4.2 The Tools of Enforcement

4.4.2.1 Self-Monitored Control Permits

The regulator as enforcer authorizes definitions of due diligence, monitors information for certification of compliance, and applies penalties and incentives based on the performance assessment reflected in certification decisions. Auditing of the

certification process itself ensures its effectiveness. Control permits, or conditions of consent, provide a useful instrument for defining due diligence.

There is considerable evidence that self-monitoring is an ineffective way of gathering the information required for certification of compliance. For example, the General Accounting Office in the United States evaluated compliance with EPA control permits and found that 82 per cent of dischargers exceeded monthly permits once in 18 months; 31 per cent exceeded them by half or more, or for at least four months. If a regulatory agency relies on self-monitoring, it is not aware of who is in need of enforcement action; long-term noncompliance results.[80]

Due in large part to lack of expertise, self-monitoring was found to be particularly ineffective in identifying entropy of existing control procedures. Thus, firms exceeded the control limits for the following reasons: plant operation and maintenance deficiencies, equipment deficiencies due to poorly designed plants and lack of expertise or negligence by engineers, and improper equipment for treatment processes. These data stress that self-monitoring requires a high degree of expertise to identify and diagnose the need for redesign.[81]

The British literature on use of control permits indicates that when the regulator assumes the role of teacher, permit levels are unlikely to be realized because of the high rate of noncompliance which is forgiven in an effort to generate voluntary compliance. If sanctions and incentives are not tied to the achievement of the limits established by the permits, such permits are likely to prove of limited use to the enforcer; they tend to become suasion tools rather than regulatory tools.

4.4.2.2 Licences

Individuals can be required to obtain licences to provide evidence of their technical competency and appropriate training. Such licences carry with them the threat of occupational disqualification, one of the most severe forms of punishment a regulator can use to generate compliance. All of these licences must be regularly renewed, permitting intermittent performance review. Each may have conditions attached to it; a licence can be temporarily or permanently rescinded if the obligations imposed on licence holders are not met. Licences thus provide a way of defining, albeit broadly, the obligations of risk creators and their key employees, and the obligations of corporate officeholders.

Licence revocation is often automatic following criminal conviction. Successful criminal prosecution defines a risk creator as unworthy of the privilege; administrative and civil penalties do not have the same effect. As a result, the effectiveness of licensing and withdrawal of administrative privilege as sanctioning devices declines as prosecution,

particularly criminal prosecution, declines. Given the regulatory importance of licensing and administrative privileges, this issue should be addressed before regulatory offences, particularly high-risk offences, are removed from the Criminal Code.

4.4.2.3 Computerized Compliance Histories

The economic consequences of licence suspension or revocation can substantial, but empirical evidence on the effectiveness of these costs is very limited. However, the General Accounting Office's study of enforcement of food safety legislation (1983) documents the unwillingness of regulators to enjoin a risk creator to perform or refrain from some act, to withold inspection, to require product recalls, to detain products until the plant is brought into compliance, or to impose a judicial seizure. They found regulators reluctant to employ penalties stronger than a "Notice of Adverse Finding", because numerous violations need to be documented to build a criminal case and histories of the risk creator's previous violations were inadequate.

If systematic compliance histories, modelled on safety histories, were maintained and a hierarchy of penalties employed systematically, the definition of unworthiness to receive privileges could be tied to penalties high in the hierarchy. Computerized compliance histories would compile a record of all regulatory involvement and subsequent performance; the results of each observation/inspection would be retained. Obligations imposed and certification of fulfilment would be available in a format permitting ongoing monitoring. These data could be used for tracking and for assessment of penalties, and would be available to all those granting privileges; their use could be legislatively required before privileges are given.

4.4.2.4 Court Orders

Designers of remedies have depended heavily upon court orders to achieve remedial action, in part because courts have been better able to supervise discovery.[82] However, judicially imposed compensation has proved to be extremely uneven; the effective use of such orders as a means of promoting more effective prevention must therefore be suspect.

4.4.2.5 Consent and Redress Orders

For quite some time, consent orders have provided an important means for requiring compliance reports and maintenance of systematic record keeping. Such orders can be used as well to require the corporate restructuring needed to develop a more effective internal control system.[83] In the United States, the Securities and Exchange Commission (SEC) and the Federal Trade Commission (FTC) have both made extensive use of such orders. By obtaining a judgment for civil penalties, which can be reduced by consumer redress or a combination of civil penalties and a redress fund, the FTC was able to convince the oil and gas industry to distribute $10 million to agrieved consumers.

The FTC's redress orders provide partial tax relief, whereas civil penalties cannot be treated as business expenses in the United States. By linking civil penalties and redress orders, the FTC has found an incentive for risk creators to locate risk bearers, thus enabling classes of risk bearers to receive some degree of redress.[84]

However, the Australian Trade Practices Commission found that in the absence of contempt of court powers, it has little clout to enforce negotiated mitigation agreements. Civil prosecution thus remains a major tool for achieving enforceable obligations to mitigate. If less use is to be made of prosecution, and more of consent orders, systematic compliance histories might be used to increase enforceability. Reliable and valid techniques for certifying fulfillment of mitigation obligations and penalties would be needed. Less reliance on self-reporting and more emphasis on multiple reporting might be required to reduce the potential for error in compliance records, which can occur when such records are used as a basis of stratification.[85]

4.4.2.6 Penalties and Fines

The American experience suggests the relevance of large penalties to generating prevention. In an earlier chapter, the importance of a risk creator's belief that failure to invest could be calamitous was discussed; data from the California Cooperative Compliance Program indicate that construction firms developed professional safety personnel as a direct result of the belief that the penalties provided in the OSHA legislation would in fact be enforced.

Jailing of executives, large fines for each violation, escalating fines, and the threat of occupational disqualification, are incentives which promote investment in prevention as long as the threat remains real. Regulators of the EPA's Mobile Source Program found that if they waited until a large oil company had acquired a sizeable number of penalties, totalling about US$ 250 000, they could negotiate succesfully with the company to develop a more effective internal control system. Investment in that system might

decline in response to internal budget cuts or too few large fines, but would recommence following imposition of sizeable fines.[86]

An interview with personnel at the American Chemical Association revealed that when OSHA stopped reducing the fines it assigned and imposed very sizeable fines on noncompliants, compliance rates and the industry's preparedness to develop effective internal control systems increased. These data suggest that rather than having a deterrent effect, large fines, if required to be paid in full, provide risk creators with justification for the savings which they can realize by investing in control methodologies. However, such investments only last as long as the data permitting such justification continue to be convincing; failure to impose and collect large fines reduce the culprits' willingness to take preventive action.

Penalties and fines are only pieces of the incentive structure that is essential to positive compliance programs. The design of the incentive structure used to achieve enforcement is of critical importance to regulatory effectiveness, because it determines whether compliance is viewed as an expenditure or an investment with precalculable rate of return. One of the major difficulties of relying on prosecution as a method for distributing incentives is that the outcome is extremely unpredictable, and the return on investment cannot be known in advance. Similarly, failure to enforce penalties and obligations to mitigate further compounds the difficulty of predicting the return on investment.

By establishing a defined structure, regulators can construct a flexible and graduated incentive system. The consequences of regulatory transgressions can be formulated in a manner responsive to the harm generated and to the faults within the risk creator's organization that caused it. Naturally, the effectiveness of a flexible and comprehensive incentive system depends on the consistency and certainty of its application. Effective prevention can therefore only be expected when there is a high degree of standardization in the definition of when incentives will be distributed and in the criteria which will be employed in calculating incentives due.

4.4.2.7 Mitigation Agreements

The application of specific incentive strategies depends upon the level of risk posed by the risk creators' actions. Flat rate fines are only appropriate for use when the risk generated is low and when noncompliance has not produced harm. As suggested previously, when the risk generated is low but harm has resulted, flat rate fines should be combined with mitigation agreements, that is contracts negotiated between risk creators and regulators, with varying degrees of risk bearer participation. Fines might be reduced or eliminated in exchange for more extensive mitigation.

EPA's Mobile Source Program thus assessed monetary penalties which could be reduced if the risk creator assumed responsibility for public education. Some risk creators reduced their penalties by taking out newspaper advertisements stating that fuel switching doesn't pay; others reduced their fines by handing out pamphlets in gas stations. An evaluation undertaken by the oil companies found that messages from people who had been caught were more influential than if the same messages came from the government or the oil companies. Promotional messages had a greater effect if they occurred at the time when the illegal act was about to happen.

The potential role for culprits in the promotion of compliance clearly needs further investigation. However, the preliminary evidence suggests that remitting fines to achieve more effective promotion may be a wise expenditure of funds. However, no other reason for reduction in fine should be permissible. In the event that the risk creator is unable to meet the obligations imposed, governments may choose to assume some of those obligations in order to ensure that harm does not multiply.

4.4.2.8 Tiered Incentives

The programs and experiences referred to above indicate that there is convincing evidence that a hierarchy of penalties is required to achieve compliance.[87] Correspondingly, in most instances, and whenever risk is high, incentives should not be flat-rate, but graduated to reflect one or all of the following:

1. the company's previous compliance record;

2. the severity of the risk generated; and

3. the severity and extent of harm resulting from inadequate performance.

By graduating or tiering incentives in response to these three characteristics, it is possible either to decrease a company's return on investment through its failure to perform or to increase it for those who have implemented effective control methodologies and continue to invest in their refinement.

The literature on effluent charges recognized the importance of tiering on the basis of resulting harm, but ignored the need to also take into account the risk generated, its distribution, and past compliance records. Much of the resistance to the economics literature on methodologies for generating compliance derives from its failure to consider the other factors. Other forms of tiering should not be employed in the design of the incentive structure, because they might undermine attempts to generate investment in prevention.

A wide variety of incentives is available to transform expenditures on prevention and mitigation into investments. Eligibility for administrative privileges, private and public sector benefits, and licences can all be graduated. Thus, for example, advance warning of an inspection is an administrative privilege, as is access to the Minister or permission to waive any rule. Private sector benefits which might be affected by tiering could include the rate charged for bank loans or insurance premiums. Public sector benefits might include access to government subsidized loans, tax credits, tax expenditures, access to leases on Crown lands, access to liquor control licences and so forth.

Where it replaces "equal access" to such benefits, tiering permits those with the best compliance records to compete against one another for the most desirable benefits, while those with poor records would be denied benefits, or be given only partial access. Furthermore, the extent of the preventive action or redress commanded could be tiered as well, and the costs of prevention and mitigation distributed differently between the public and private sectors, between risk bearers and risk creators, depending on compliance records.

Other incentives whose distribution can be tiered include access to custom designed as opposed to standardized definitions of due diligence, eligibility for self-monitoring or the privilege of self-certification, and reduced frequency of regulatory reporting and performance audits.

Giving advantages to risk creators with effective control strategies at the expense of those with unsatisfactory ones makes it worthwhile to invest in their development and refinement. It provides internal safety advocates with a list of benefits to tote up when they urge members of their organization to invest in a more effective control system. Tiering on these bases promotes regulatory objectives; other forms of tiering may actually undermine them. It is thus important that a designer of incentives ensure that firms with effective control strategies will be consistently advantaged over those without such strategies.

4.4.3 Summary

The role of the regulator as enforcer is a complicated one. Monitoring the harm generated by an activity reflects only the initial component in the operation of an enforcement incentive structure. In positive compliance programs, the regulator should be prepared to investigate the compliance history of the risk creator, as well as the behaviour of the risk creator without regard to the presence or absence of harm or to its severity, extent and distribution. By considering the various aspects of a situation, an appropriate enforcement outcome can be rendered.

In conjunction with interested parties, regulators and regulatory bodies should design and apply flexible and graduated incentive systems aimed at achieving long-term implementation of systematic control technologies for the prevention and mitigation of harm.

4.5 Managing Interdependence

Effectiveness in positive compliance programs requires the regulator to maintain a balance among various interest groups. As discussed in Chapter 2, situations of overcontrol or undercontrol in which public or private interests take priority over each other undermine the goals of positive compliance. In order to achieve the desired balance, regulators can call upon the legal system to assist in the enforcement of regulations designed to protect public and private interests.

Part of the regulator's role is to appear impartial and capable of drawing together private firms and citizens for negotiation of problems and to work with the court system in enforcing regulations; this section examines techniques to assist the regulator in achieving legitimacy and credibility in the eyes of those whose cooperation are necessary for the success of positive compliance programs.

4.5.1 The Four Dimensions of Intrusivenes

In order to respect the interests of the private sector, the regulator should seek to use the least intrusive regulatory instrument available to achieve compliance. However, positive compliance also recognizes that effective regulation can only be achieved if there is consistent use of a hierarchy of penalties and incentives which promote compliance. As a result, the intrusiveness of the instrument used must increase the greater the probability of harm: the more difficult it is to mitigate a given harm, the longer the duration of noncompliance, and the more frequent its recurrence. Failure to do so will undermine enforcement.

To assist in conceptualizing regulatory intrusiveness, it is useful to think of regulatory instruments in terms of their location along four distinct dimensions:

1. change of priorities or assumptions required;
2. self-sufficiency of the firm;
3. standardization of penalties and recording of noncompliance;
4. respect for a company's zone of privacy.

Each of these categories brings with it the potential for high or low intrusiveness of the regulator's involvement.

4.5.1.1 Changing Priorities or Assumptions

The first dimension concerns assistance strategies. That is, to what degree is government urging the private sector to adopt simple, standardized predesigned packages of control technologies and routines which require little time, cost or knowledge to implement effectively? Or is government demanding that the private sector change its assumptions, priorities and trade-offs? If the answer is the former, there is a low degree of intrusiveness; the latter approach, however, is highly intrusive.

Baldwin further differentiates between promotion and education, arguing that promotion is much less intrusive than education because the former requires little knowledge, expertise or commitment to systematically and continuously gather and process information. As a result, as long as the package is simple, cheap, and effectively targeted, there is likely to be relatively little resistance to its adoption.

Education, on the other hand, is designed to alter assumptions, priorities and trade-offs, changing the decisions people will make and providing the knowledge and design principles needed to assess one's own technologies and control routines. While promotion can be used when the environment is simple and stable, education is needed when it is dynamic, hostile and complex because the problems which may occur cannot be accurately forecast. In this case, preprogrammed packages will not permit an effective response to encounters with harm; instead, the regulated need to acquire the ability to custom design responses. Risk creators cannot rely on a government inspector to introduce new packages as entropy reduces the relative effectiveness of old techniques; reliance on government would prove ineffective since inspectors may not be available when needed.

In order for education to be effective as a regulatory tool, knowledge and experience are both required, effective monitoring is essential, and one must be able to respond to the data gathered through monitoring quickly and effectively. An effective pigeon-holing system is vital so that accurate diagnoses can be provided and appropriate courses of action selected. All these measures are costly and time consuming. Control routines and technologies are therefore likely to degenerate through entropy, and their effectiveness must be constantly re-evaluated. The search for information must be continuous and those intepreting the data must regularly upgrade their skills.

In order to maintain the private sector's cooperation, the choice of the assistance strategy must be appropriate to the assessed levels of risk and harm. The regulator will

otherwise be perceived as promoting overcontrol if strategies are too intrusive for the situation, or as promoting undercontrol if strategies are ineffectual.

4.5.1.2 Self-sufficiency of the Regulated Firm

The second dimension which can be used to assess intrusiveness relates to self-sufficiency and independence. The firm's ability to independently authorize and audit actions needs to be assessed to determine whether authorizations involve joint decisionmaking and whether auditing is undertaken from outside the organization and thus beyond its control. Joint decisionmaking requires coordination, which becomes much easier when there is convergence of assumptions and priorities, and agreement about which trade-offs are acceptable or not. The interests of others must be accommodated when joint decisionmaking is required. Instead of giving orders, decisionmaking partners exchange and respond to advice. Relations among the parties are less hierarchical and there is a realization that each participant has distinct areas of expertise which, if effectively mobilized, can increase the quality of decisions and the ease of implementation.

The intrusiveness of regulatory investigation depends on the extent to which a private organization has established an effective monitoring system. Without such a system, the regulator needs to intercede in the development of monitoring technologies residing within the firm; as a result, regulatory action will be perceived as intrusive. By developing self-sufficiency and/or a response system for public interests, private firms can minimize the incidence of such overcontrol. Similarly, firms can affect the amount of regulatory intervention directed at balancing the interplay of interests.

4.5.1.3 Standardization of Penalties and Compliance Records

The third dimension which needs to be addressed when assessing the degree of intrusiveness focuses on the standardization of penalties and incentives and the recording of noncompliance. Consistency and standardization permit accurate forecasts of the consequences of noncompliance. Are they collected through a simple process which does not generate a public record? Or are penalties and incentives distributed through highly visible and prolonged processes? Standardization promotes intrusion by the regulator, who needs to assess the degree to which a firm meets its obligations. The publication of compliance records can further intrude on the operation of the firm by causing financial, sociai or occupational repercussions.

In administering the consequences for private firms of their actions and by publicizing this information, regulators can control the intrusiveness of procedures. The degree to which a firm complies with set standards and provides reliable data about its

performance will determine the extent to which the regulator penetrates the organization to gain such information. Regular assessment of performance and readily available information will circumvent the demand for increased control to realize the public interest; overcontrol will be preempted. At the same time, regulatory evaluation will prevent the development of a state of undercontrol and maintain the balance of interdependencies.

4.5.1.4 Respecting a Company's Zone of Privacy

The last dimension focuses on the degree to which there is an intrusion on the risk creators's "zone of privacy" when rights are transformed into privileges which can be withdrawn at the regulator's discretion.[88] The conditions imposed on companies whose stock is publicly traded, for example, reduce the company's ability to keep information confidential. As well, the right to trade the stock is conditional, a privilege; if obligations to provide the information specified are disregarded, the privilege can be removed, dramatically reducing the company's access to capital.

The conditional nature of the privileges that government licensing, listing and eligibility criteria provide is perhaps the most powerful resource available to regulators seeking to alter the behaviour of risk creators. The variety of incentives available is immense; the challenge is to use those incentives effectively to achieve regulatory objectives. The need for government authorization of private sector action provides regulators with bargaining power. Yet at the same time, such discretion creates uncertainty for risk creators. Maintaining a zone of privacy would permit risk creators to act solely in according to their own priorities, whereas gaining access to privileges controlled by government may require that risk creators adjust their priorities to those of the regulators.

4.5.2 Manipulation Through Intrusion

The above four dimensions are used to assess the degree of intrusiveness in preference to following the blanket assumption that regulation is necessarily and inherently intrusive. To assist in understanding this point, one may consider a guideline currently employed by the Department of Justice Canada. That guideline identities regulatory instruments as low and high in degree of intrusiveness. Thus, the least intrusive instruments are identified as being positive incentives, education, warnings, and administrative sanctions, while suspension or forfeiture of licences, civil damages, injunctions and criminal prosecutions are defined as being the most intrusive.[89]

The four dimensions set out above can thus be employed to assess the relative intrusiveness of proposed governmental action, enabling regulators to select the least

intrusive instruments without sacrificing policy objectives. The same four dimensions can be employed in the effective establishment of a hierarchy of penalties and incentives to promote compliance. Thus, for example, organizations which consistently and reliably limit the harm they generate should receive appropriate incentives, incentives which will escalate the greater the probability of harm they face, the more difficult it is to mitigate such harm, and the greater the duration of the period for which harm is limited effectively.

Incentives which relate to regulatory intrusiveness could involve some combination of the following:

1. expanding the zone of privacy and the limits on those seeking to withdraw privileges;

2. reducing the potential for financial, social or occupational calamity of long duration;

3. increasing the emphasis on giving advice rather than giving orders; and

4. excusing firms from costly and time consuming reporting obligations by employing their management information system rather than the one normally employed by the regulatory agency.

Criminal prosecution is likely the most intrusive regulatory instrument. However, criminal prosecution makes no attempt to change an individual's assumptions, priorities or trade-offs, nor does it require coordination with parties over whom the risk creator does not exercise control. It may not necessarily lead to adverse financial, social, or occupational consequences calamitous for the risk creator; in fact, its outcome can be highly inconsistent. The probability of calamity is greater for a lawyer (who can be disbarred on the grounds of a criminal record) than for an engineer, greater if there is extensive publicity of the prosecution than if there is not, and greater when high maximum penalties are provided in the statute and the adjudicator is willing to apply them. The limits on an individual's zone of privacy will be greater if he is sentenced to jail than if a fine is imposed. These examples suggest that criminal prosecution could be extremely intrusive, but need not be. In fact, as suggested earlier, education might be more intrusive than criminal prosecution since its emphasis is on changing assumptions, priorities and trade-offs.

Relations between private interests and regulators are greatly affected by the intrusiveness of regulatory measures and the incentive structure of the compliance program. In a positive compliance program, the regulator evaluates performance and has access to relevant information. When private firms assume responsibility for designing control technologies and providing information, the regulator can establish a

cooperative working relationship with the private sector. When firms do not abide by standards and fail to recognize or report harm, the regulator must use intrusive measures to achieve control and build an understanding of the limits of private interest and its relationship to public interests.

4.5.3 Regulatory Legitimacy

Managing interdependence involves the regulator in responding directly to public as well as to private interests. Public perception of regulatory performance and its value influences the nature of the obligations the regulator is expected to fulfil and affects the credibility of regulatory actions. In risk assessment, the greater the disagreement about the quantity, distribution and consequences of risk, the less clear the definition of what is a socially acceptable degree and distribution of the risk. In the absence of a clear moral mandate, the inspector's teaching task becomes more difficult because risk bearers will probably perceive the necessarily close relationship between risk creator and regulator needed for effective tutelage as a form of "capture", or conspiratorial collaboration. This belief can undermine the legitimacy of the regulator as a fiduciary for the public good, who protects the interests of risk bearers vis-à-vis risk creators.

The less legitimacy regulators have in the eyes of risk bearers, the greater the need for risk bearers to participate themselves directly in the authorization and auditing processes in order to allow multiple and competing definitions of what is or is not acceptable to be included in a given plan of action. The more divergent the definitions of acceptable and unacceptable control strategies, the greater the probability that the legitimacy of the regulation or the regulator's action will be challenged in court or at the political level. As well, demands will intensify to include risk bearers in the negotiation of definitions of due diligence, so that eventually their priorities and not those of the regulator will prevail.

If risk bearers wish to be included in negotiations, they will mobilize various sources of external control to increase their clout in negotiations with regulators. Regulators will respond in turn by minimizing that external control, so that they can protect their ability to educate risk creators in diagnosis and risk reduction. Thus they can be expected to select enforcement strategies which decouple the regulator from crown prosecutors, courts, and politicians. They will prefer administrative penalties over those imposed by courts and will resist needed amendments of legislation.

4.5.4 Openness

Unless general public participation in the authorization and auditing processes is expanded, a fiduciary's accountability to his principal may be reduced, resulting in the regulator becoming a lexical or false fiduciary.[90]

Clearly defined performance standards and public access to information about the degree to which they were achieved, and about rationales for compliance and noncompliance, become important ways to prevent alleged and actual capture. Both clear standards and access to information are means of avoiding public misconceptions about a regulator's relationship to risk bearers. Designing an annual report which is responsive to the public's desire for knowledge about the rate, degree, and distribution of benefits of mitigation becomes an important regulatory activity.

Supplementary monitoring can increase the legitimacy of the regulators in the eyes of risk bearers. If regulators teach others how to identify increases in risk, how to gather systematic data on noncompliance, and how to mobilize the authorities to act quickly on the data gathered, they can reduce the resources the regulatory agency must devote to monitoring. The efforts of regulators and risk bearers can approximate continuous surveillance and, if action follows closely upon complaint, regulators can convince risk bearers that the regulatory strategies in place actively promote their interests.

Most importantly, authorizing regulatory objectives and auditing compliance can provide accountability without limiting the methods regulators can employ. Designing methodologies that permit broad public participation without creating excessive costs or delay becomes another regulatory responsibility which critically affects legitimacy in the eyes of risk bearers.

4.5.5 External Control by Courts and Crowns

The court system can significantly alter the balance of interdependencies among private interests, public interests and regulators. External control by Crown and courts has traditionally interfered with the ability of regulatory agencies to fulfil their mandates: Crown prosecutors and courts often forgive noncompliance without an adequate understanding of the consequences their actions might have on the quantum and distribution of risk or on the incidence of nonperformance. Such actions have caused regulatory agencies to distance themselves from the courts. However, the result of this distance (or "loose coupling") is less ability on the part of the regulators to use the force of the law to ensure that a risk creator's obligations to the public are met.

Positive compliance programs become possible by redefining the roles of courts and regulators. Penalties become only one resource which regulators can mobilize; by focusing attention on increasingly effective strategies for ensuring performance and

remedying the consequences of nonperformance, greater responsibility is placed on regulators to monitor outcomes and to refine definitions of due diligence and remedial actions. As a result, they can more effectively create the consequences desired. Such an approach differs from the prevailing American deterrence model, which emphasizes the imposition of penalties rather than remedying the consequences of nonperformance. That model stresses punishing noncompliance rather than ensuring performance.

Courts frequently lack the expertise needed to redefine possible incentives or disincentives, or to design the mitigation required. The role of the court should thus be limited to determining whether performance was inadequate, and to imposing the standardized incentive. It also orders the risk creator to mitigate and ensures that the incentives or mitigation are implemented in full. Deterrence - increasing the probability that legal obligations will be met in full - and design of incentives to promote an adequate return on investment should not be a court function, but a regulatory responsibility. If that responsibility is removed from regulators, they are denied the means to achieve their objectives. It remains for the court to confine and structure regulatory discretion and to provide force of law to ensure that obligations to the public are met. Courts should not check regulatory discretion, however; rather, the legislative and executive branches should monitor regulators since it is they, not the courts who define the need for regulation.

4.5.6 Negotiating Standards and Conditions of Consent: Methods for Dispute Resolution

The complexity of the issues often make prosecution an extremely costly and inappropriate regulatory instrument for the resolution of disputes and the design of appropriate mitigation agreements. Unfortunately, in attempting alternative routes, regulators may encounter difficulties in bringing together and promoting open communication among parties who have competing interests. Frequently, regulators are faced with the following obstacles to dispute resolution:

* severe personality conflicts that impede negotiation;
* poor communication and coordination between the parties;
* multiple plaintiffs and defendants with conflicting agendas;
* inflexible negotiating postures;
* sophisticated technical problems, causing factual disputes;
* parties or issues with a long history of intransigence;
* very high compliance cost penalties;
* remedies involve technologies which are difficult to implement or not available, particularly sensitive environmental concerns, or issues of national significance; and
* when courts are unable or unwilling to settle disputes.

The following paragraphs outline techniques which can be useful when negotiations bog down.

Conciliation may be used as the regulator attempts to improve communication, and to narrow issues when the parties are unprepared to come to the table to engage in face-to-face negotiations.

Mediation may be employed when disputing parties are prepared to arrive at a negotiated settlement. This structured process employs a third party as facilitator; settlements reached are not binding. The parties continue to control the substance of the discussion.

"Med-arb" is a term coined by the Americans[91] for a hybrid between mediation and arbitration; the process provides the mediator with the authority to arbitrate those issues which are not resolved through mediation.

Arbitration is widely used in the settlement of commercial disputes, and involves a more formal hearing process at which arguments and evidence are reviewed. The decision of the arbitrator may or may not be binding on the parties. The procedure permits relaxation of the rules of evidence and introduces a number of time-saving devices.

A great deal of concern has been expressed that alternative dispute resolution mechanisms undermine "regulatory processes designed to protect the public interest" and "restrict rights".[92] Trade-offs acceptable to the particular risk creator and risk bearer who are at the table may be unacceptable to other risk bearers and may undermine the objectives of the regulatory agency. Particularly if the parties differ significantly in clout, the outcome may prove unfair. The American EPA requires agency approval of the settlement negotiated in an effort to restrict these problems.[93]

Generic hearings, file hearings, formal hearings, and predecision conferences are all used by regulators in an effort to narrow the issues in dispute among conflicting parties and thereby to reduce the magnitude of opposition to regulatory proposals.

Consensus standards are required and Federal Trade Commission staff have argued that failure to provide certain due process protections in standard setting constitutes a *per se* violation of antitrust laws. The American emphasis on the balance of interests participating in definitions of due diligence is so great that private standard setting organizations have an affirmative duty to represent all groups.[94]

One of the most important advantages of alternative dispute resolution techniques is that they permit people to tell their story, most often uninterrupted. Questions, examination of the facts, or alternative interpretations may be advanced subsequently but are not permitted to interfere with the telling of the story.[95] This particular aspect of the process has been found to increase the degree of participant satisfaction when compared to court processes.

If these dispute mechanisms are to produce settlements, however, there is a need for time pressures on both sides and parity of power. The mediators must help sell the settlement negotiated to regulatory bodies, Schoenbrod argues, while others, particularly Harter (1982), stress that regulators must participate in the dispute resolution process in order to gain a clear enough understanding of the priorities and worse case scenarios advanced by each party. Without an understanding of both, appropriate trade-offs cannot be developed; once this understanding has been gained, Buckle and Buckle (1986) found these approaches produce outcomes which fit the parties' needs better.

Another alternative would be to leave all negotiations, decisions and procedures to discussions between risk creators and risk bearers only. Regulators would have no part in determining action. However, designing incentives for risk creators is more appropriate than adopting an economic model which would leave their design to the market or a price mechanism simply in order to reduce the role of government. The market is not concerned with protecting risk bearers and many risk bearers are unable to demand protection from risk on their own. Furthermore, the need for protection does not grant the ability to demand it: should protection of the environment depend upon the willingness of fiduciaries to purchase economic rights on its behalf? Who is to purchase protection for future generations?

Leaving outcomes to the market would also deny the existence of obligations on the part of risk creators to risk bearers; it is a concept which assumes that the actions of risk creators have no consequences for the welfare of others. It is almost trite to state that to organize institutions on the basis of such an assumption is inappropriate. Governments exist in part because individuals and organizations are unable to manage their interdependencies; the role of government is to facilitate coordination. With the development of greater mutual adjustment the government can assume a less active role - giving advice rather than giving orders. But until tighter coupling develops, it must maintain a highly active role.

4.6 Regulatory Instruments for Risk Bearers

Above, we have discussed some of the instruments available to the regulator; it remains to be explored what means are available to risk bearers if regulators fail in their role, and do not apply their tools or employ ineffective ones. One instrument available

to risk bearers in the United States is a suit alleging systematic inadequacies in statutory enforcement - nonenforcement of a Congressional mandate or significant delay in administration. In particular, civil rights legislation and social security disability benefits in the United States provides for these forms of equitable relief:

> **Enforcement injunctions** may be used to refocus or reorganize in some detail an agency's enforcement effort, and will specify the performance to which beneficiaries are entitled. This then is the administrative equivalent of the consent order.
>
> **Declaratory judgments** can be used to require the enforcer to return periodically and demonstrate compliance, to necessitate court approval for compliance plans, to order agencies to attempt to procure additional enforcement resources, or to implement a compliance plan imposed by the court.
>
> **Injunctions** are available if compliance is not forthcoming. The emphasis here is on forecasting the degree of probable noncompliance[96] and the degree to which such noncompliance will impair a group right.

Greater attention to the development of additional tools which can be exercised by risk bearers would seem to be essential if demands for tough enforcement are to be reduced effectively. Risk bearer instruments also have the potential to reduce overcontrol and the regulatory costs it generates.

5.0 CONTINGENCIES AFFECTING REGULATORY DESIGN

Regulation can employ standardized rules, tiering of standardized rules, and custom designed rules in an effort to mitigate harm. While standardized rules are less costly to design and administer and provide greater procedural fairness, they will only be effective in generating reduction in harm if they avoid the twin problems of overcontrol and undercontrol. In assessing whether standardization, tiering or custom design are required when one is defining due diligence for risk creators, establishing priorities to guide regulators in making choices, or allocating specific roles to regulators, it is important to assess a number of contingencies:

1. the regulatory environment;
2. the degree of external control to which regulators are subject;
3. the cost and effectiveness of available control technologies;
4. the severity of risk to be controlled;
5. the effectiveness of the risk creator's internal control system; and
6. the risk creator's compliance history.

It should be noted that too much emphasis on any one of these six variables at the expense of others threatens regulatory effectiveness.

Much of the recent debate over regulatory reform has stressed the cost and effectiveness of available control technologies, ignoring the other five variables. This oversimplification of the problem increases the advantages of risk creators at the expense of risk bearers, and leads to substantive unfairness and undercontrol. To achieve outcomes which are substantively fair, all six variables must be afforded equal or at least substantial weight.

5.1 The Regulatory Environment

5.1.1 The Existing Degree of Concertation

As the degree of concertation increases, the relations among regulators, risk bearers and risk creators and among regulatory agencies, courts, and the executive and legislative branches become increasingly cooperative. Similarly, the likelihood that

overcontrol will develop will decrease and the effective implementation of positive compliance programs will be facilitated. Regulator management of interdependencies, as discussed in previous chapters, can play an important part in increasing the degree of concertation.

The degree of concertation attained will also be affected by the extent to which the parties involved agree or disagree on the following issues:

1. the priority attached to mitigating a given form of harm;

2. the tolerance of failure to mitigate;

3. the size of noncompliance penalties deemed appropriate;

4. the definitions of due diligence acceptable to those risk bearers assessing adequacy of mitigation; and

5. the definitions of grounds for tiering.

With an increase in the degree of concertation, the regulator's position will be strengthened when negotiating contracts among parties. If parties can achieve some consensus on what constitutes tolerable or intolerable harm and how it is distributed, then regulators possess a moral mandate to enforce the appropriate measures. The regulator acquires clout in taking action especially at times when those presenting the public interest place a high priority on harm prevention and mitigation, and when the public's awareness of its interests is heightened.

Convergence between regulatory agents and the legislature or between regulatory agents and the courts on major issues also affects the level of concertation. That is, these parties at least should attain some agreement on defining methodologies as appropriate or inappropriate, on the allowable degree of intrusiveness into zones of privacy, on the appropriate mix of private and public law models and the standards for fiduciary accountability. A high degree of concertation in the above matters will facilitate quick and definite regulatory action when required.

5.1.2 Degree of Access for Risk Bearers

The greater the diversity of interests among risk bearers, the less likely it is that regulators will be able to define "the public interest" without assistance. Under such circumstances, the need to increase public participation in the policy development and

checking process will increase. The ability of risk bearers to participate effectively will be affected by the following variables:

1. the availability of forums for participation in and oversight of regulatory practices;

2. the ability to forge coalitions among representatives of diverse public interest groups and gain recognition as legitimate trustee/delegate;

3. the resources available from the private and public sectors for research, policy development and representation of risk bearers' interests;

4. the adequacy of notice given to risk bearers;

5. the ability of risk bearers to interpret information without a fiduciary/intervenor;

6. the availability to risk bearers of skilled fiduciaries;

7. the design expertise of those risk bearers gaining access to policy elaboration processes;

8. access of risk bearers to the process for defining due diligence;

9. the ability of risk bearers to critique assumptions of those defining due diligence;

10. the ability of risk bearers to gain amendments to proposed definitions of due diligence;

11. ability to assess the effectiveness of monitoring;

12. access to data on forgiven noncompliance and the reasons given for forebearance;

13. access to proposed terms of mitigation agreements and the ability to contest their adequacy;

14. access to valid information on mitigation achieved and the availability of impact statistics; and

15. expertise in critiquing the assumptions, priorities, forecasts and trade-offs underlying enforcement strategy.

The access of risk bearers to the regulatory process can have a significant effect on the development of a positive compliance program. When involved public interests participate in the process, they can contribute to the definition of due diligence and assist in establishing the conditions under which activities that create high risk or have potentially severe consequences may be undertaken. Trade associations, for example, may provide meaningful guidance in identifying problems common to a particular industry and in disseminating information on mitigation strategies. Through their involvement, they can advocate and formulate obligations for member companies to mitigate all harm created and to invest in adequate internal control systems.

The participation of risk bearers also increases the number and variety of independent sources of monitoring; members of the public may be able to identify and report violations without specific training. Access of the public to the mitigation agreement may encourage the regulator to apply incentives and penalties to offenders.

5.1.3 Control Technologies

The state of development of technical systems will affect the ability to identify, prevent and mitigate harm reliably. Accurate measurement of harm is essential to an effective monitoring and reporting program, and will permit the forecasting of the mitigation required. Other aspects of technological development involve the ability to design effective mitigation strategies, and to price mitigation strategies correctly.

The capacity to measure harm has a pervasive influence over the diagnosis and assessment of harm. The standards for due diligence and the determination of risk levels depend on measurement technology. Standards and risk level, in turn, affect the decisions regulators make about the appropriateness of specific mitigation strategies. The refinement of existing measuring instruments will determine whether changes in the quantum and distribution of harm will be detected.

Measurement influences the assessment of regulatory performance. When measures are more intuitive than empirical, then reasons for forgiving nonompliance are required. Regulators will need to justify and explain such decisions to the public.

Control is also affected by the development of the very technologies that carry out the actions taken to prevent or reduce harm. In the conditional approval process, for example, private firms must demonstrate that they have the capacity to control harm before they are permitted to engage in activities carrying risk. In the accountable self-regulation model, companies are required to develop the technology that will earn them the privilege of minimal intrusiveness of regulation on their operations.

5.1.4 The Degree of External Control Over the Regulatory Agency

As discussed in Chapter 2, the regulator employing a positive compliance approach attempts to maintain a balance of control among public and private interests. However, if the legislature, prosecutors or the judiciary frequently forgive noncompliance, they will reduce the degree of authority with which the regulatory agency acts. When this occurs, regulatory bodies will endeavour to decouple themselves from such external control in order to achieve increased independence; the incentive for affected parties to appeal regulatory decisions rather than complying with them will increase.

Decoupling provides the self-sufficiency necessary to permit regulatory priorities to prevail, and reduces the accountability of the regulatory agency to those seeking to exert external control. Attempts to decouple the regulatory agency from prosecutors and courts will reduce reliance on prosecution and increase the utilization of administratively controlled instruments for achieving compliance.

To decrease external control, regulators must seek to create greater concertation between risk creators and risk bearers; more emphasis must be placed on managing interdependence through fair, equitable and accountable procedures so that the regulatory agency will be perceived as reasonable and responsive to all parties rather than as a creator of winners and losers. In this way, appeals of regulatory decisions can be avoided and external control can be limited.

5.1.4.1 Control By Legislature and Executive Branch

The degree of external control over regulatory activity increases when low concertation exists between regulatory and other control agents. Pre and post auditing of regulatory behaviour and the lobbying activities of risk creators and risk bearers can heighten an awareness of differences in priorities. The degree of concertation between the legislature or the executive branch and the regulators will be affected by the extent of their agreement on the following issues:

1. the tolerability of risks, harm and potential consequences;
2. the priority attached to risk reduction and mitigation;
3. the appropriate rate of mitigation;
4. appropriate methodologies for achieving mitigation;
5. the degree of latitude or forebearance considered reasonable; and

6. the limits on degree of external control to which firms should be subject.

In addition, concertation between regulators and the legislative branch alone will be affected by their agreement on the relative import of rehabilitation, deterrence and restitution, and of administrative versus civil and criminal penalties. The executive branch and regulators need to agree on the pricing of alternative ways of mitigating harm. A high degree of concertation in these areas will decrease the limits placed on the regulatory agency's ability to authorize decisions independently.

5.1.4.2 Control by Courts and Prosecutors

Similarly, the independence of the regulatory agency depends upon its relationship with the courts/tribunals and the crown law officers/prosecutors. The degree of control by each of these external groups increases with:

1. the frequency and legitimacy of and importance attached to court action;
2. the level of agreement on whether risks are tolerable or intolerable;
3. disagreement on a ratio or interval scale of harm;
4. disagreement on the relative weight attached to false positives and false negatives;
5. inability to measure the relationship between cause and effect;
6. circumstances in which the fit between legal principles and regulatory assumptions is not good;
7. disagreement on the degree of latitude or forebearance deemed reasonable;
8. disagreement on the relative import of rehabilitation, mitigation, deterrence and restitution; and
9. disagreement on appropriate defences.

The Crown's relations with the regulatory agency will be negatively affected by the frequency with which fail to prosecute cases are recommended by regulators and when opportunities for mitigation are bargained away. Also, external control by courts or tribunals increases with the frequency with which no or minor penalties are assessed and when no mitigation is achieved.

5.1.4.3 Control by Risk Creators and Risk Bearers

Other groups who can mobilize external control and work at cross purposes with regulators are risk bearers and risk creators. The degree of control exercised by these groups increases with:

1. disagreement over whether risks are tolerable or intolerable;

2. their ability to mobilize the legislative and/or executive branch to intervene to curb regulatory authority;

3. their willingness to challenge the jurisdiction of the regulatory agency in court;

4. the degree of public trust in the private sector; and

5. their ability to forge diverse, durable coalitions.

Relations of risk creators and risk bearers to regulators are further affected by the extent to which they perceive that the regulatory agency takes their interests into consideration. In the case of risk creators, external control can be minimized when there is agreement on pricing and effectiveness of mitigation strategies. Their control will likely be exercised when they see regulators as unreasonable and when there is an inability to measure the relationship between cause and effect. Risk bearers, on the other hand, try to exercise control when there is disagreement on the effectiveness of alternate ways of mitigating harm. Also, when actual regulatory priorities, forecasts, assumptions and trade-offs undermine attempts to achieve the regulatory agency's mandate, risk bearers will attempt to exercise control.

5.1.5 Severity of Risk or Consequences

Perception of the severity of risk or consequences is affected by prevailing assumptions and theories about the causes of harm. The greater the consensus on these, the more likely it is that there will be agreement on the severity of risk and the consequences of inadequate control. Disagreement about the level of risk or what levels are acceptable reduces the regulator's moral mandate and increases the probability of undercontrol. The combination of disagreement and undercontrol may in turn generate reactive overcontrol by the regulatory system.

The greater the agreement on the restrictions which risk bearers and risk creators are prepared to accept voluntarily in order to keep risks within acceptable limits, the less

the probability of overcontrol or undercontrol. In situations of high risk, there is a greater probability that risk creators will be prepared to limit risk voluntarily; they will be more likely to be aware of their legal obligations, knowledgeable about control technologies and prepared to invest in creating effective internal control systems. As a result, undercontrol is less likely to occur. As long as both regulator and risk bearer recognize each other's expertise and commitment to risk control and reduction, overcontrol is unlikely to evolve.

The severity of the risk or consequences will also influence the actions of regulators in the implementation and application of positive compliance programs. When a high risk or severe consequences are posed, regulators will be indisposed to forgive noncompliance. Rather, the regulator should have available a wide variety of hierarchically organized, easily deployed incentives. In a case of high risk or severe potential consequences, regulators should be prepared to increase the frequency and continuity of audits of design, prototype, quality assurance systems, performance data, record keeping systems and equipment. If firms fail to comply, regulators should reserve the option of employing legal control.

In other words, the severity of risk or consequences should affect regulatory goals, actions and, ultimately, the design of harm prevention and mitigation systems and the speed of their application.

5.1.6 The Quality of the Risk Creator's Internal Control System

The reliability and efficacy of a risk creator's internal control system, whether already in existence or subject to implementation on a voluntary basis or by regulatory command, will depend upon the following variables:

1. the magnitude of public and private sector incentives to invest in internal staff with the expertise needed to refine mitigation procedures, and certainty that such incentives will be employed consistently;

2. the ability to assign a price to alternative prospective and retrospective mitigation strategies and to calculate the savings and return on investment they can generate;

3. involvement of those with strategic decisionmaking authority in monitoring corporate compliance and in letting managers know when performance is inadequate;

4. the clout available to compliance personnel in their systematic assessment of the compliance records of corporate decisionmakers, and the use of these records as a basis for allocating corporate privilege;

5. sensitivity to deterioration in the effectiveness of existing control routines, and the need for ongoing redesign and reinforcement of mitigation technologies and procedures; and

6. the resources allocated to searching internally and externally for uncontrolled problems.

In developing internal control systems, the breadth with which design standards are applied must be determined. A great degree of diversity in the reliability of the internal control systems makes any one system inappropriate for industry-wide usage. When broad standards do not apply to a given situation, custom design of a system is required. However, custom design can reduce the fairness of applied standards when little diversity in the reliability of internal control systems exists, that is, when standards and technologies demanded vary from firm to firm. The credibility of the regulations will suffer with any perceived inequities among competitors. Therefore, in designing internal control systems, the reliability of the proposed system, the extent to which it effectively applies to a risk situation and the needs of a firm, and the extent to which it promotes competitive fairness and upholds regulatory objectives must all be considered.

The particular activities of a firm can also affect the design of a system and its responsiveness to external control. To develop a responsive system, private firms need to monitor and participate in the policy setting and refinement processes of regulatory agencies. Ongoing involvement will provide access to information on new mitigation technologies, monitoring techniques, and their costs and benefits. In addition, firms should have access to the perspectives of risk bearers. Openness to the activities and perceptions of those external to the firm can facilitate adjustment to changing market conditions, thereby reducing pressure on employees to cut corners. Private firms can thus increase the flexibility of their internal control systems by maintaining responsiveness to outside activities.

5.1.7 Compliance History

The past activities and compliance histories of private firms can also have an impact on the regulatory contribution to system design and the enforcement of standards, and will be taken into consideration in the custom design of harm control strategies. That is, consistent compliance by firms increases the potential for custom designed definitions of due diligence and for risk creators to assume partial responsibility for monitoring and enforcing compliance. A firm with few serious past violations can

anticipate having more opportunity for self-determination in regulatory activity than other firms with more violations.

The degree of past compliance by a private firm ought to affect the frequency and continuity of post audits. A history of high compliance levels will reduce the post auditing of records, performance data, operating procedure and equipment by those outside the firm. In this case, the regulator becomes the overseer of a control system that is minimally intrusive to the firm. However, reducing the frequency of post auditing can impede investment in control technologies because certain of the incentives to invest decline. That is why in high-risk industries, where the need for auditing persists, self-regulation needs to be accompanied by accountability.

6.0 LEARNING BY EXAMPLE: THE BRITISH, AMERICAN AND AUSTRALIAN EXPERIENCE

6.1 Introduction

This chapter, in essence, presents a comprehensive overview of the characteristics of the regulatory approaches found in Great Britain, the United States, and Australia. The raw material on which the analysis is based can be found in the companion volume to this study, which contains over one hundred summaries of regulatory programs, directives, or initiatives from these three countries - the "regulatory profiles". Some of these programs are still in existence, others have run their course; all offer practical insight into the approach to positive compliance regulation taken by different jurisdictions.

The observations set out in this chapter are based on data from individual programs, as well as on extrapolations from a multiplicity of examples. For simplicity's sake, any references to a specific program will be made within the body of the text, and will direct the reader to the inventory code which the respective profile was assigned in Volume 2.[97]

The analysis below will demonstrate that, in all the areas of regulation included in the regulatory profiles, the Americans have devoted the most attention to developing incentives designed to increase the willingness of risk creators to exercise due diligence. The British and Australians, on the other hand, have devoted more energy to developing incentives intended to increase the willingness to provide information on noncompliance. Only in the environmental area have the Americans made use of the latter approach.

The American adaptation of designing incentives to inform, compared to that of the British or Australians, relies less heavily on self-reporting by risk creators, and more extensively on encouraging risk bearers, other government officials and employees of risk creating firms to provide information.

While the Americans employ occupational licensing as an incentive in the area of consumer protection, the Australians employ it to regulate safety. Occupational licensing is not employed as an incentive for compliance in the environmental area at all, the exception being hazardous waste disposal, which is in large part a safety matter first and an environmental matter second.

In the environmental area, sanctions and fiscal policy have been stressed by all three jurisdictions, with the emphasis being placed on the costliness of compliance and noncompliance rather than on individual responsibility for environmentally sound

corporate practices and technologies. Apparently no one is professionally responsible for the quality of the ecosystem.

The chapter will examine the differences in approaches among the British, the Australians and the Americans, and present an outline of the regulatory system in each country with respect to its general characteristics and its specific implications for regulatory activity. A discussion of the differences among the three systems will conclude the chapter.

6.2 The British Approach to Positive Compliance: An Enforcement Deficit

6.2.1 Fundamental Premises and Principles

The British system is one in which performance standards are valued over design standards, and a compliance strategy is preferred to a sanctioning strategy.[98] Hawkins argues that the emphasis is on preventing and remedying harm, "negotiating future conformity," and a "commitment to repair of a potential source of harm." Decisions "are graduated in character ... controlled by the parties themselves in private, intimate negotiations." He further states that the concern is with "statistics of impact," reflecting the regulatory agency's "effectiveness in repairing harm."[99] However, this study found that the British continue to rely on the intuition of the regulator for assessment of the quantum of harm or its impact. As a result, British regulators employ a flexible approach to regulation which does not command compliance, without monitoring the consequences of this flexibility for harm reduction.

Under the British system, the frequency with which compliance is audited and commanded appears to affect the degree to which it is achieved. Only compliance that is simple and inexpensive is likely to be achieved[100]. As a result, much of the regulatory activity which has been defined in the literature as "diagnosis" may actually be promotion of simple and inexpensive strategies for achieving prevention at least cost.

The British system likely involves less custom design and more routine activity than suggested in the literature. Consequently, British regulators may be overqualified for the task required of them. Both going by the book and promoting use of standardized control methodologies are semi-skilled regulatory tasks: one requires effective selection of appropriate incentives, the other persistent auditing and effective targeting.[101]

When the emphasis is on targeting, trade associations can become valuable allies. They have the operational knowledge needed to develop control procedures acceptable to a given industry, and which accurately reflect the way work in that industry is

organized. As well, trade associations provide communication channels which can be mobilized to disseminate changes in regulations that affect the industry, as well as knowledge about cheaper or more effective control procedures and technologies. As long as the task is dissemination of standardized control procedures and technologies, trade associations can assume many of the promotional responsibilities which otherwise accrue to regulators, thereby increasing resources available for auditing activities. The British system is very open to the participation of trade associations.

6.2.2 Regulation Without Effects Monitoring: An Exercise of Misplaced Trust

Use of performance standards without monitoring their effects reduces the probability that the adequacy of standardized control procedures and technologies will be questioned. The frequency of change decreases accordingly. Altering standardized control procedures is a costly process since it requires reprogramming the behaviour of large numbers of firms. Any redefinition of low-cost procedures will be resisted as long as possible, that is, until the evidence of superiority is overwhelming. Regulatory objectives are undermined by the absence of effects monitoring which can document inevitable decrease in the effectiveness of formerly adequate control strategies. The British system lacks the monitoring that would make its flexible approach effective in enforcing standards and achieving the goals of positive compliance.

The leniency toward private firms and their activities suggests that regulators in Britain do not look upon risk creators as amoral calculators. This trusting attitude persists despite the findings of British researchers[102] that most so called "good apples" have merely calculated that the magnitude of risk deriving from their production processes or loss of reputation is so great that investment in an effective harm control system is a necessity.

In their regulatory activity, British regulators are likely to employ intuitive rather than systematic assessment of effects, in part, because regulators are assumed to be experts who act as pure fiduciaries. Citizens have not acquired a substantial role in defining or assessing the performance required, or monitoring compliance and effects, because of the system's preference for private negotiations between regulator and risk creator. The diversity of priorities among risk bearers has neither been recognized nor accommodated.

Given the limited nature of citizen participation and the absence of extensive litigation challenging the legitimacy of regulatory action, regulators are accountable only to Ministers. Since the role of risk creators in monitoring and enforcement is minimal, and there are few if any methods available to risk creators seeking to limit undercontrol; reduction in quantum of harm depends on the priorities of the regulator and the Minister concerned. When combined with the absence of systematic effects monitoring,

the zone of forgivable noncompliance is wide, reducing the potential for conflict between industry and regulators. Imprecise performance standards and a wide zone of forgivable noncompliance also diminish both the likelihood of prosecution and the probability of its success, except when evidence of harm and intent are clearcut.

Assurances of voluntary compliance under the *Consumer Credit Act* (UK-X-a-2) enable regulators to negotiate future conduct with risk creators who have been found to be out of compliance. Like consents in the environmental area, such assurances specify a timetable for achieving compliance. There is no provision for risk bearers to participate in defining the terms of the assurance, and remedying the harm created by prior failure to exercise due diligence is not an included term. Instead, the emphasis is on preventing recurrence of harm. Furthermore, schedules are routinely renegotiated to avoid conflict. Court orders are only sought when risk creators fail to negotiate an assurance.

This approach to regulation relies on custom-designed performance standards, but also fails to provide for effects monitoring. Hawkins and Richardson (1982) sum up the British approach by suggesting that in the area of environmental regulation, feasibility is more important than harm reduction when performance standards are established.

6.2.3 Design Standards: The Price of Uniformity

Not all British regulatory practices can be characterized by the precedence of performance over design standards. In the area of safety regulation, British regulators rely more extensively on design standards than they do in the environmental field. Here, they are assigned responsibility for promotion and seeking adoption of simple, inexpensive, accepted procedures and technologies for reducing injury rates.[103] When more complex and expensive procedures are required, the industry is encouraged to participate in defining and promoting design standards. In this way, the competitive position of individual members of an industry is not affected since all are expected to adopt the same procedures and technologies. Industry members will have a stake in ensuring the universal adoptation of the standards, in order to ensure that no one is advantaged at the expense of others.

While Lord Robens' *Report of the Committee on Safety and Health at Work* (1972) assumes that defining control procedures and technologies is a management responsibility, it views enforcement as a responsibility which can be assigned to both labour and management since it calls for complementary rather than joint action, and requires neither training nor expertise. This approach to increasing safety does not necessitate recognition of the design expertise of operators or their importance in effective implementation. Thus, following the *Report* regulators continued to advise

management, not employees; the latter were merely authorized to mobilize regulators when there was a need for improvement notices and prohibition notices.

6.2.4 Self Assessments: The Haphazard Approach

The 1980 lead standards assigned employers responsibility for conducting "assessments in order to determine the nature and degree of exposure to lead of their employees. ... Doubts soon became evident, however, concerning employers' willingness and competence to conduct these assessments."[104] A study in the Leeds area involving employers who had been warned in writing that an inspector would come to review such assessments found "only 53 per cent of employers had carried out the assessment. ... One in five of the assessments that had been conducted was found to be unsatisfactory. ... Other areas reported that very few employers were capable of adequate assessments in spite of extensive publicity and the distribution of guidance."[105]

Self assessment and design of an effective control system are tasks requiring expertise which only very hazardous industries possess. Firms in the Leeds study did not assign a high priority to conducting such an assessment, and thus did not even find the time to read the guidance materials. In the absence of auditing, compliance is minimal. When audited, firms, particularly smaller ones, do only what is required of them by the regulator/auditor. Guidance is useful only when compliance is audited and commanded.

6.2.5 Summary

In the environmental and consumer protection areas, the British rely considerably on using permits to justify audits of private sector performance: see UK-E-a-1; UK-E-a-2; UK-E-a-4; UK-E-a-9; UK-E-a-10; UK-X-a-1; UK-X-a-2; UK-X-a-5; UK-X-a-7; UK-X-a-8. In the environmental area, providing incentives to firms to exercise due diligence (UK-E-a-3; UK-E-a-5; UK-E-a-6) has been stressed, while consumer protection regulation has placed more emphasis on variances (UK-X-a-1; UK-X-a-2; UK-X-a-6).

Emphasis on least-cost prevention strategies combined with the failure to measure their effects, and a lack of techniques for holding regulators responsible for harm reduction, all decrease the probability of litigation by dissatisfied risk creators or risk bearers; especially the latter are prejudiced by the attendent lack of data which might prove that harm was caused. Furthermore, in the absence of effects monitoring the consequences of undercontrol are less apparent, and the demand for tough enforcement will go down. Risk bearers are less aware of the magnitude of the harm which results from inadequate regulatory enforcement. As well, as Richardson (1982) notes, regulators in Britain are not conscious of the consequences of the strategies they pursue for controlling harm. Thus, they assign a lower priority to harm reduction and a higher

priority to gaining compliance with least-cost minimal standards. As a result, opportunities for harm reduction are lost.

When a permit system is used without systematic effects monitoring or accountability to risk bearers or supervisors, noncompliance is forgiven and inadequate attention is devoted to mitigating harm. The British claim that they are exercising forebearance in order to increase compliance, yet there is little evidence to suggest that harm is assessed and noncompliance forgiven only when the quantum of harm is judged to be insignificant.

The British disregard for balancing control suggests that they do not, in theory or in fact, employ a positive compliance approach to regulation.

6.3 The American Approach to Positive Compliance: A Case of Overcontrol

6.3.1 Fundamental Premises and Principles

The Americans have devoted much more attention than either the British or the Australians to replacing design standards with performance standards, particularly in the environmental and occupational health and safety areas. In part, this may be due to the generally more extensive use of design standards in the United States, certainly as compared to Britain. Moving from design to performance standards emphasizes the need to monitor the quantum of harm and to develop effects monitoring.

The regulatory profiles collected from the United States reveal the diversity of regulatory approaches which are employed by the Americans. As a result of going by the book, there is a tendency towards overcontrol; reliance on sanctions and litigation by risk creators and risk bearers is pervasive. At the same time, a wide variety of conciliatory, consensus building strategies exist. Furthermore, although "voluntary compliance programs" are used very selectively, their use has been developed much more systematically than in the other two jurisdictions. Auditing procedures are much more sophisticated, because the accountability they demand requires that regulators provide evidence that harm reduction is not jeopardized by regulatory flexibility. High levels of accountability necessitate high levels of effects monitoring.

The American approaches to regulation place more emphasis on mitigation of harm than does the British approach. The Office of Surface Mining emphasizes reclamation (US-E-a-l), as does the hazardous waste binding arbitration program (US-E-b-2). Feasibility studies designed to demonstrate that proposed methodologies will meet performance standards are required by the Office of Surface Mining

(US-E-a-4) and by the Environmental Protection Agency (US-E-b-2) in an effort to protect against undercontrol.

As well, American programs place a great deal of emphasis on constantly refining the standards employed to reduce the quantum of harm more rapidly. Much of the litigation undertaken by risk creators centres around the feasibility of performance standards and timetables, that is, whether they are technologically and economically realistic, or whether a less costly alternative and longer phase-in period would suffice. Risk creators naturally seek least-cost prevention, while regulators and risk bearers seek increasingly effective harm reduction. By contrast, the endemic British failure to require compliance with schedules reduces litigation by risk creators. In Britain, as well, the reduced emphasis on the accountability of regulators to risk bearers reduces the probability of litigation.

Most American regulation is constructed on the assumption that risk creators are amoral calculators and that regulatory strategies must be designed so as to encourage investment in increasingly effective harm control. Hawkins has termed this a "sanctioning strategy." Numerous approaches have been pursued, such as refusal to extend regulatory deadlines, increasing the size and certainty of sanctions, assigning mitigation costs to the risk creators rather than the public sector, extensive auditing of voluntary compliance programs, limiting noncompliance forgiven by reducing regulatory discretion. These strategies, and the effort to increase the benefits accruing to those who voluntarily control harm and undertake to refine their harm control techniques, have resulted in overcontrol.

6.3.2 The Cost Factor: An American Preoccupation

Increasing the effectiveness of harm reduction techniques requires innovation rather than promotion; risk creators must develop design capacity rather than merely implementing standardized least-cost procedures and technologies. This goal requires education rather than mere promotion and ongoing investment. Yet, companies are unwilling to make such investments, as long as less costly approaches will suffice. As the British experience has shown, as long as deadlines can be extended, least-cost prevention substituted, noncompliance forgiven or lightly sanctioned and costs of mitigation minimized, the return on investment in new procedures and technologies will prove inadequate. A great deal of effort in the United States therefore seeks to increase the return on investment realized by those voluntarily controlling harm.

Risk creators prefer the least-cost method rather than the most effective approach. Although accurate effects monitoring is expensive and difficult, substantial reductions in the quantum of harm have been realized when performance standards were adopted. For example, the cotton dust standard (US-O-a-16) resulted in replacing

outdated machinery with better equipment, which firms had not installed despite its availability.[106] Adoption of the new machinery resulted in lower costs of compliance than predicted. The OSHA contractor had estimated in 1974 that the cost would be $1,941 million; the calculation in 1982 was that the cost had been $245 million.[107] Substantial increases in productivity were achieved in addition to the reductions in harm to health.

6.3.3 Cooperative Compliance Programs

Examples of cooperative compliance programs involving both risk creators and risk bearers do exist. California's Cooperative Compliance Program (US-O-a-11) sought to improve voluntary approaches to harm reduction. The need was recognized for labour and management jointly to monitor compliance with design standards, and jointly to propose improvements in procedures and technologies which could increase the effectiveness of safety programs. Management and labour were recognized as having different areas of expertise and influence, which had to be combined if the effectiveness of safety programs was to be increased. Labour had operating knowledge, an understanding of how and why work was organized, whereas management had access to safety experts, who in turn were familiar with the design standards and the procedures and technologies which had proven effective in increasing safety. As well, these experts had the knowledge needed to design or redesign procedures and technologies to fit the needs of a specific firm.

However, such experts are advisors to management and their advice is not always heeded. Traditionally, experts have not served as advisors on safety to labour because labour has not possessed the authority to order changes in procedures or technology. By creating joint labour/management safety committees, and defining safety professionals as staff providing expertise to both, and by soliciting proposals for improving safety from all company members, this initiative mobilized all sources of expertise to be brought to bear in evaluating proposals for improving safety. If proposals were not accepted, the reasons for their rejection were specified. Implementation of promising proposals was facilitated because committee members included respected senior managers who could sell proposals to senior management lobbyists within senior management and respected, expert workers who could explain proposals, their expected effects and why they seemed to be valuable to workers.

However, it should be noted that a program such as the toxic chemical permit system (US-E-a-10), which assigns EPA responsibility for selectively assessing the effects of chemicals, does not ensure that consumer groups will have access to the results of research, testing and monitoring undertaken. EPA is assigned the fiduciary role and citizens are unable to advance alternative interpretations of the data and alternative policy recommendations. Only EPA is assumed to have the expertise required to assess

whether risk reduction is required. As a result, the potential for the agency to be perceived as a false fiduciary is increased.

The California Cooperative Compliance Program sought to restructure relations within the workplace so that employers and employees could work more effectively together to reduce safety violations in the workplace. On the surface, both the Americans and the British thus have created labour/management safety committees, but the processes employed and the roles assigned to regulators differ significantly. The American approach defines safety as everybody's responsibility; all are expected to propose techniques for improving safety. Both labour and management are recognized as having the expertise needed to evaluate proposals, and the support of both is viewed as necessary to effective implementation. The American approach seeks to improve harm reducing procedures and technologies and to promote innovation at the same time.

6.3.4 Monitoring compliance

Monitoring compliance is an essential phase in the implementation of a positive compliance program. Involving individuals other than regulators in gathering information may improve the quality of information on noncompliance and enable regulatory resources to be used more effectively.

The use of incentives to supplement regulatory information gathering is best exemplified by Los Angeles County's program for rewarding people who provide information on any illegal disposal of hazardous waste, and by the county's local government compliance units which train county officials to identify and report illegal deposits (US-E-b-16). Institutional awareness programs and public information programs are used to inform the public of regulatory obligations and to encourage citizens to participate. The rewards for informants encourage employees of firms which illegally dispose of hazardous waste to report such disposal, and the information provided has led to success in all resulting legal proceedings.

Institutional awareness and public information programs employing videotapes and newspaper advertisements have been proposed to reach those responsible for millions of underground storage tanks, according to Richard Mays, former Legal Counsel to the EPA. That strategy seeks to improve enforcement of underground storage tank regulations designed to prevent contamination of groundwater supply.

Self-reporting schemes may supplement other forms of monitoring, or displace them entirely (US-E-a-l9; US-E-a-7; US-O-b-l). Environmental self-audits may be used as an additional source of information, or regulatory monitoring of compliance may be reduced with growing reliance on self-audits. There is considerable evidence that self-reporting is not an effective substitute for regulatory monitoring, due to problems with

validity and completeness of the data, while self-reporting cannot replace regulatory monitoring, it can be a valuable additional source of information.

6.3.5 Replacing Design Standards With Performance Standards

6.3.5.1 The Need for Incentives

The Americans place far more emphasis on harm reduction than the British do; accordingly, the American approach seeks to create voluntary compliance on the part of amoral calculators by increasing their incentives to invest willingly in harm reduction. Those incentives will only prove adequate if there is a transition from design to performance standards, if the detection of noncompliance improves, and if the effectiveness of audits of both compliance and harm reduction is increased. As well, the incentives for compliance created by permit systems, sanctions, and rewards - such as modifying workers compensation rates based on safety records - must be great enough, fast enough and certain enough to induce ongoing investment. Reliance on performance rather than design standards requires practicable norms, an effective information system, and the ability to substitute compliance monitoring with performance evaluation, that is, effects monitoring.

6.3.5.2 Practical Implications

Using performance standards rather than design standards has several implications for the regulatory practice: regulators must have a high degree of technical sophistication. Assessing the degree of harm and appropriate standards for its reduction requires design capability; there is no rulebook which can be followed. The need for expertise necessarily increases regulatory costs. As well, retrospective effects monitoring may result in attempts by regulators to gain modifications in design or technology which are expensive. Thus the costs to risk creators may also increase as the expectations of the regulatory experts rise.

6.3.5.3 Managing Interdependencies

In a system focused on performance standards, regulators become involved in managing interdependencies among the various interests and facilitating their agreement on standards. Investment in harm reduction will decline if assessments of harm and reduction practices differ among risk creators, risk bearers, legislators, regulators and prosecutors. In the American regulatory system there has traditionally been little

coordination among these parties. Priorities have diverged; the resulting conflicts undermine any attempt to promote voluntary investment in harm reduction.

Litigation by risk bearers and risk creators increases the influence of courts and prosecutors. Decoupling the regulatory process from courts and prosecutors is intended to permit faster, more consistent application of sanctions and to ensure that sanctions are severe enough to encourage investment in effective prevention and mitigation. Alternative dispute resolution therefore is, in large part, encouraged in order to eliminate this source of resistance to investment in harm reduction. The following section will examine aspects of this approach in greater detail.

6.3.6 Multi-party Participation in Regulation

The Americans have been most concerned about providing risk bearers with opportunities to advance alternative solutions to those preferred by regulators. Thus, risk bearers are invited to participate in standard setting, monitoring and enforcement. This approach is reflected in the American's frequent use of alternative dispute resolution in the negotiation of settlement agreements - especially in the environmental area - and in the extent to which mechanisms for holding regulators accountable for their failure to enforce regulations have been developed, particulary in the fields of consumer protection and human rights.

However, hearings, if they become pro forma, may not be an effective way of holding regulators accountable for the standards they establish and their enforcement. When hearings become a mere formality, competing interests may be heard but their views may not be reflected in the design of rules adopted; citizens may be able to give advice, but it may be consistently disregarded. Privatization of settlement agreements on one hand may increase citizens' ability to affect decisions, but on the other hand may result in inadequate attention being devoted to alternative solutions, and to the differences between private and public costs and benefits. Significant segments of the affected public are not represented when disputes are resolved in this manner, and the agreements reached are often neither publicized nor their effects monitored. While mediation is useful in resolving matters of fact, particularly when there are highly complex factual disputes, it is not an effective approach to settling matters of law and policy.

In some regulatory areas, the Americans have provided risk bearers with the means of countering undercontrol resulting from insufficient regulatory application. Civil rights legislation and social security legislation in the United States permit individuals, denied access to the performance to which classes of potential beneficiaries are entitled, to seek an injunction. The court approves a compliance plan and can order a regulatory agency to procure additional enforcement resources (US-X-c-l0).

The existence of procedures which risk bearers can mobilize in response to undercontrol would appear to be an important means of reducing pressures for overcontrol. By having alternative mechanisms available, risk bearers need not demand limits on regulatory discretion through the introduction of inappropriate rules. However, expansion of mechanisms for holding regulators accountable may be more difficult to achieve in a parliamentary system where undercontrol is more likely to prevail than in the American system. Nonetheless, it is precisely because undercontrol tends to be more likely in parliamentary systems that access to such mechanisms is important.

6.3.7 Enforcement: The Search for Effectiveness

The case studies of regulatory incentives suggest that fiscal policies designed to increase the ability of firms to purchase control technologies have not been effective instruments for increasing regulatory compliance. The inadequacy of effects monitoring has prevented implementation of proposals for introducing effluent charges and injury taxes. As well, these proposals have been opposed by parties who see them as a licence to create harm, a fee which can be paid in lieu of prevention and mitigation. Such taxes are viewed as reducing rather than increasing the probability that the quantum of harm will decline. Fines, as well, are likely to be viewed in a similar vein.

Diverting limited resources to purposes which may have no effect on prevention or mitigation of harm undermines regulatory objectives. Only when fines are large and certain enough to promote prevention and/or mitigation do they become effective regulatory instruments. EPA has found that discretionary contractor listing and SEC disclosure requirements are more effective than fines in promoting compliance (US-E-a-3; US-E-a-21).

Permits are often issued in order to legitimize auditing of risk creators by regulatory agencies on a recurring but intermittent basis. Permit renewal is conditional upon performance and provides an opportunity to redefine expected performance. While the Americans audit performance in the environmental and occupational health and safety fields, there is little reliance on this approach in the area of consumer protection.

6.3.8 Variances: Compliance Through Exception

In the United States, the emphasis on programs designed to permit variances - exceptions to rules - is greatest in the area of environmental regulation, that is in the area where the reliance on sophisticated technologies for achieving regulatory objectives is heaviest. Variances are used both to promote technological innovation and to provide relief from excessively costly obligations. However, their effectiveness as a means of

promoting technological innovation is not supported by the cases analyzed. Evaluations of programs for providing variances indicate that high decisionmaking costs are associated with case-by-case applications for variances, results are inconsistent, litigation based on alleged unfairness is frequent, persistent delays are common, and opportunities for manipulative behaviour are increased. When regulators grant or deny variances, procedural safeguards are often inadequate, and finally, risk creators are favoured at the expense of risk bearers since compliance extensions often become indefinite.

The Environmental Protection Agency's Variance Agreements in the area of thermal pollution (US-E-a-2), and the Army Corps of Engineers General Permits (US-E-a-ll) are examples of forgivable noncompliance. In both cases, provisions for variances resulted in wholesale exemption from statutory requirements. In the case of the Army Corps of Engineers General Permits, an effort was made to exempt 60 per cent of the wetland area in the United States from legislation controlling the discharge of pollutants, contrasted to the three per cent exempt prior to introduction of the general permit program. In both cases, the regulatory decision to grant wholesale exemptions resulted in extensive litigation and persistent delays in achieving regulatory objectives.

6.4 The Australian Approach to Positive Compliance: Integrating Risk Bearers into the Process

6.4.1 Fundamental Premises and Principles

The Australian approach differs fundamentally from the British in that it seeks to provide greater public access to regulatory information by assigning more responsibility to risk bearers . It recognizes the need for regulators to respond to the worst case scenarios of risk creators and risk bearers, and provides both with opportunities to criticize regulatory assumptions and advance alternatives.

6.4.2 Certificates of Competency

In the area of safety, the Australians emphasize certificates of competency, issued to semi-professionals who are assigned responsibility for knowing and fulfilling regulatory duties. Certificates of competency legally define the individuals responsible for safety, particularly in the mining and shipping industries. Following an accident, hearings are held to determine whether certificates of competency should be removed in order to disqualify any individuals involved from performing their occupation. This avoids the problem in Britain, where no one assumes responsibility for knowing the regulations or promoting compliance with them.

Certificates of competency are issued to qualified individuals, who are assumed to have the expertise required to design control procedures and technologies that are appropriate to the specific contingencies faced and adequate to harm control. There is considerable discretion over how harm reduction is achieved; no "best way" is assumed because of circumstantial diversity. Rather, those responsible are assumed to have both the expertise and the motivation required since they will be held accountable, and perhaps face occupational disqualification, if control strategies prove inadequate.

6.4.3 Monitoring the Effects of Regulation

The use of certificates of competency, however effective they may appear, promotes harm prevention without encouraging ongoing investment in its reduction at the same time. Effects monitoring does not occur on an ongoing basis, but often only when prevention has proved inadequate. Typically, in Australia effects monitoring is not a regulatory responsibility. Thus, monitoring adverse reactions to pharmaceuticals, evaluating the consequences of exemptions from competition provisions, and reviewing the consequences of conditional consents imposed by commissioners of inquiry in environmental matters, are all not included among regulatory responsibilities. Only in the consumer protection field is auditing of performance considered a major priority.

As a result, considerable harm may occur before a given standard of due diligence is altered; once harm has occurred, little effort at mitigation is made except in the areas of consumer protection and human rights regulation. The use of performance standards without effects monitoring increases the probability that feasibility becomes more important in the design of regulation than its effectiveness in reducing harm.

When audits do occur, they define eligibility for licensing and relicensing which may involve custom design or redefinition of performance standards as well as effects monitoring. The audit may also involve assessment of the least-cost standard in a particular case, and a review of evidence that compliance with such a standard has been adequate.

The role of risk bearers in the auditing process becomes contentious, however, and a number of questions arise:

* Will risk bearers have access to performance evaluations and be given an opportunity to criticize the data?

* Will they be able to advance alternative interpretations of the data?

* What role do risk bearers assume in defining the performance standards to be met?

* Do the standards reflect the priorities of risk bearers, or merely those of the regulatory body?

Most permit programs are designed so that risk bearers are given neither access to performance evaluations, nor an opportunity to participate in case-by-case definitions of appropriate performance standards. In part, this shortcoming is due to inadequate effects monitoring.

Risk bearers are, however, involved in some compliance monitoring programs in Australia:

> Residents along Queensland's coast take regular measurements of the beach, and forward them to headquarters in Brisbane. Similarly, the Western Australian Department of Fisheries and Wildlife has appointed a number of honorary fisheries officers to assist in general surveillance, and appointed seventy volunteer wardens to monitor historic shipwrecks.[108]

These information gathering programs supplement regulatory monitoring and improve the ability to identify harm in need of mitigation.

6.4.4 Dispute Resolution Techniques

Instead of employing alternative dispute resolution, the Australians employ a system of consultation, draft reports, and conferences or hearings inviting criticism of the draft report; these are followed by issuance of a final report. The process may be used to provide advice to the Minister or to decide whether to grant exceptions. This technique involves risk bearers in evaluating the regulatory agency's interpretations of data and policy recommendations. Sources of agreement and disagreement are clarified for the Minister and/or the regulators, resulting in a better understanding of the consequences of accepting or rejecting the advice tendered.

When the regulatory agency rather than the Minister has decisional authority, an appeal goes to tribunals staffed by subject matter experts, or to the Administrative Appeals Tribunal on procedural grounds. While appeal procedures allow challenges to the legitimacy of regulatory decisions, they fail to empower risk bearers to require regulators to enforce more vigorously the law on the books.

6.4.5 Variances

The Australian Trade Practices Commission has developed formal procedures that permit public participation when variances are sought - an approach to granting

exceptions which might reduce reliance on and the success of litigation were it to be employed within the United States. The Australian process clearly differentiates between public and private costs and benefits, and specifies that the variance can only be granted if the public benefits outweigh the anti-competitive effects. However, public benefits are defined only in economic terms and authorizations are granted on the basis of forecasts. The regulator assumes no responsibility for effects monitoring; if such monitoring is to be undertaken, it is the responsibility of risk bearers.[109] In the absence of effects monitoring, inadequate attention is paid to the quantum and distribution of harm left unreduced because of a decision to grant a variance.

Variances have been justified as a technique needed to encourage higher performance standards and technological innovations, but the evidence suggests that they are not effective tools for promoting technological innovation. Evidence of alleged higher performance standards is also not persuasive. Variances are used almost exclusively to permit least-cost prevention and to ensure the technological feasibility of standards. There is little evidence that variances are used to improve the effectiveness of harm reduction through custom design.

Granting variances may involve forgiving noncompliance, or forebearance. If noncompliance has little impact on the quantum of harm, then a variance constitutes mere forebearance. But if the consequences for harm are significant, then a variance actually sacrifices harm prevention for some other social or economic objective. Effects monitoring is needed if forebearance and forgivable noncompliance are to be differentiated. In the absence of effects monitoring, there is no empirical base for differentiating between the two.

6.5 Learning from the British, American and Australian Experience

The regulatory profiles collected in Volume II and referred to in this chapter suggest a wide variety of approaches which have been taken to achieve harm reduction and to generate compliance. Certain approaches are more successful than others, and this section attempts to summarize both positive and negative aspects - or effects - of those which have been tried by other jurisdictions.

The summary moves from the general to the specific, closing with a repertory of techniques particular to the three systems studied, but is not intended to provide a catalogue of "dos" and 'don'ts." The reader in search of positive directives is referred to the recommendations contained in the final chapter of this volume

6.5.1 Fundamental Principles and Approaches

6.5.1.1 Re-evaluating Assumptions: Design Standards versus Performance Standards

Positive compliance aims both to improve regulation through redesign and custom design and to increase the numbers of risk creators who contribute to harm reduction. It requires contingent rules which are subject to constant refinement - dynamic regulation.

While design standards are easier to enforce, performance standards are more likely to focus attention on harm reduction; at the same time, they encourage ongoing redesign so that better ways are constantly being discovered and disseminated. Economists have stressed the costliness of regulation - the ways in which regulations limit choice and divert resources to nonproductive purposes. In response to their criticisms, a great deal of regulatory reform has sought to develop rules which are less costly to risk creators and which place fewer limits on the methodologies available to them for reducing harm. The critique of the economists has encouraged a transition from design to performance standards and an emphasis on least-cost design standards.

H.A. Latin (1985), in particular, suggests that dynamic regulation reduces fairness and increases costs, shifting the burden of increased costs from risk creators to government. As well, he claims that relatively little attention has been paid to the consequences of least-costs design standards, and increased use of variances for harm reduction. The literature does suggest that variances have been used to extend the zone of forgivable noncompliance rather than to encourage better ways of reducing harm, sacrificing the interests of risk bearers to those of risk creators.

The reforms introduced as a result of the economist's concerns thus appear to have increased the costs borne by governments and risk bearers, while reducing the costs to risk creators. Furthermore, greater use of effects monitoring would probably reveal, as did the research on air emission permit trading,[110] the extent of the opportunities to reduce harm which have been lost as a result of the desire to reduce the costs borne by risk bearers.

6.5.1.2 The Need for Effects Monitoring

The purpose of regulation is to reduce harm. To know if that purpose is being achieved requires effects monitoring; to assess the relative effectiveness of diverse methodologies, their consequences for harm reduction must be measured accurately. More resources need to be devoted to developing more effective instruments for monitoring harm.

Rhodes has argued that inspectors can assess compliance, but are relatively ineffective in monitoring effects. Only when effects on harm can be accurately measured will the effluent charge systems advocated by economists become feasible, yet British experiences with sewer charges suggest that charge systems may still remain less effective regulatory tools than economists suggest.[111] More sophisticated systems are needed: EPA's engineering research department, for example, is developing sensors that can be tied into a computer so that pollutants can be monitored continuously.[112]

Monitoring effects is essential to the design of effective regulation if forecasts of harm are to become more accurate; only then can adequate prospective remedies be provided. Reliance on risk or cost/benefit analysis - forecasts developed in the absence of adequate effects monitoring - will inevitably produce conflict over the assumptions underlying the analysis: risk bearers and risk creators evaluate risks, costs and benefits differently. Their participation in the regulatory process is needed to question the validity of the forecasts which provide the basis for defining the adequacy of prevention required and the prospective design of remedies. While greater use of better effects monitoring improves the empirical base underlying forecasts, it can also reduce disagreement on effects, making public participation in the regulatory process less critical.

Compliance monitoring, as well, can become increasingly effective when the ability to measure effects is improved. Currently, noncompliance is frequently forgiven because the harmful consequences of failing to meet design or performance standards are not unambiguously established. Also, although prescribed by law, regulatory standards often lack legitimacy because their link to harm reduction is inadequately defined. Effects monitoring has the potential for increasing the legitimacy of regulations and the willingness of regulators, prosecutors/crown law officers and judges to enforce them.

While effects monitoring can contribute significantly to improving compliance monitoring, compliance monitoring in itself may add relatively little to improving harm reduction. In fact, increasing compliance may deter refinement of harm reduction techniques, thereby undermining regulatory objectives. Thus, when selecting approaches which might improve the effectiveness of Canadian regulation, it is important to assess their consequences for both increasing compliance and improving harm reduction techniques.

6.5.2 A Cornucopia of Techniques

6.5.2.1 Assurances of Voluntary Compliance

Assurances of voluntary compliance (UK-X-a-2) are a notion upon which Canadian regulatory officials might build. In Britain, such assurances represent timetables for achieving compliance rather than schedules for reducing the quantum of harm created through the inadequacy of past or present preventive measures. Under the British system, the public plays no role in negotiating, monitoring or enforcing the performance standards and schedules which those who have failed to comply are expected to follow. In adapting assurances of voluntary compliance for use in Canada, the emphasis should thus be on developing schedules for reducing the quantum of past or present harm. Risk bearers should be involved in negotiating the schedule, and effects monitoring should be employed so that the quantum of reduction in harm is measured. Terms negotiated should be public, and risk bearers should have available to them legal tools for requiring enforcement if regulators fail to do so.

6.5.2.2 Commissioners of Inquiry

Using commissioners of inquiry (UK-E-a-ll and Au-E-a-5) to give advice to ministers on conditions of consent which address the worst case scenarios of all risk creators and risk bearers seems preferable to the American emphasis on private settlement of disputes through alternative dispute resolution. The approach is less formal than environmental assessment hearings, and costs are dramatically lower since lawyers are not employed. The emphasis on creating custom designed remedies to address worst case scenarios seems to be a promising approach to conflict reduction. However, reports should probably be published at the time they are submitted to the minister, and ministers should be required to give reasons when recommendations are rejected or altered. Notices of completion should be required when conditions have been met, and effects monitoring is needed so that conditions of consent can be designed with increasing effectiveness.

6.5.2.3 Prohibition notices

Prohibition notices and orders have proved to be effective regulatory incentives, and giving employees the authority, when safety is endangered, to stop production until an inspector arrives has proved to be a power which unionized employees have used responsibly in Britain and Australia (UK-O-a-3; Au-O-a-4).

6.5.2.4 Certificates of competency

Certificates of competency (Au-E-a-1; Au-O-a-2; Au-O-a-4) might be employed to define more clearly those responsible for ensuring regulatory compliance and who will authorize and implement harm reduction strategies. While the Australians do not require regular renewal of such certificates, Canadian regulators should. The renewal process should focus attention on how more effective reduction of harm is to be achieved, and could become a forum for effective dissemination of better control strategies. Certificates of high competency might be created as well, in order to reward those who develop and disseminate innovative control strategies.

It should be recognized, however, that while certificates of competency can be effective in a dynamic and diverse environment, or when the design principles are well established, they may prove less so when design principles are evolving and the environment is complex. Thus, for example, certificates of competency would be ineffective in regulating off-shore oil and gas development, where there is a need for ongoing feedback between the regulator and the risk creator's design experts. Under such circumstances, preauditing of regulatory plans for controlling harm and ongoing effects monitoring are of more critical importance. Both the regulator and the risk creator's design experts must contribute to continuous improvement of strategies for controlling harm more effectively.

6.5.2.5 Authorization processes

The authorization process (Au-X-b-l and Au-X-a-5) employed by the Australian Trade Practices Commission is an approach to granting exceptions which permits the questioning of the regulators' assumptions by both risk creators and risk bearers. In particular, it permits those with operational knowledge to critique the design which regulators believe to improve the process of harm reduction. The regulatory agency should have responsibility for revoking or redesigning the conditions of authorizations when the effects forecasted are not realized. Risk bearers should continue to have the ability to require reauthorization, and all authorizations should be reconsidered every three to five years.

6.5.2.6 Administrative and other Penalties

Administrative penalties (US-E-c-l; US-E-c-3; US-E-c-6) are an aspect of the American approach to regulation which Canadian regulators should consider adopting in order to increase the certainty, consistency, and speed with which sanctions are administered. However, it is essential to keep in mind that the purpose of penalties is to promote reduction of harm. If other strategies are more effective in promoting voluntary

investment in harm reduction, then those strategies should be substituted. To determine which strategy is appropriate, effects monitoring is required. The goal is to achieve that combination of incentives to prevention and mitigation which is most likely to ensure voluntary investment in harm reduction.

It is thus important to follow the American lead in assuming that risk creators are amoral calculators. Creating incentives to invest in increasingly effective harm reduction strategies should be the regulator's objective and thus systematic assessment of alternative strategies should be of prime importance. More emphasis needs to be placed on rewarding those who do a better job of reducing harm and on disseminating strategies to others. The Securities Exchange Commission (SEC) now employs disclosure requirements to identify firms who are not in compliance with environmental legislation (US-E-a-21). A similar approach might be used to increase public awareness of firms which have achieved the star level under programs of voluntary compliance. Such firms are a better investment risk, and investors should be acquainted with that fact.

Ticketing systems for minor violations (US-E-c-3) can greatly speed up the sanctioning process and dramatically improve collection rates. Reduction of monetary penalties in return for implementation of promotional and preventive programs (US-E-c-2) can be used to improve internal control systems and to increase the effectiveness of promotional activities. An evaluation undertaken by the oil companies found that promotion was more effective if undertaken by sources other than regulators.

Civil and delayed noncompliance penalties under the *Clean Air Act* (US-E-c-6) assess penalties which are related to the costs which were saved by noncompliance with an imposed schedule. The penalty seeks to remove the benefits achieved through delaying compliance.

6.5.2.7 Increasing Public Awareness and Involvement

Promotion of a broader understanding of regulatory objectives and techniques for recognizing when regulatory objectives are not being met effectively, and encouragement of the free flow of negative feedback would also strengthen regulatory effectiveness in Canada. More attention needs to be devoted to supplementing regulatory efforts at monitoring compliance and identifying harm.

6.5.2.8 Making Risk Creators Pay for Mitigation

Private responsibility for mitigating past harm is a concept found in the American superfund legislation, and should be applied more generally. Research is needed on the consequences for preventive action and the changes in the design of internal control

systems which occur as a result of risk creators being held responsible for remedying the consequences of past actions. The ability of risk creators to choose whether to design and implement the remedy themselves, or bear the costs of permitting the government to do so, is a particularly attractive aspect of this approach. Research needs to establish whether prevention is differentially affected depending on the choice made.

6.5.2.9 Voluntary Protection

The American voluntary protection program has proved particularly effective as a technique for providing regulators with information which permits development of better design and performance standards. As well, it has proved an effective way to get companies with particularly successful internal control systems to participate in disseminating the knowledge acquired and to act as consultants to other firms.

6.5.2.10 Labour Management Safety Committees

These committees, which developed under the California Cooperative Compliance Program[113], define the structuring of relationships within firms which promote ongoing refinement of control procedures and technologies. Rapid assessment and implementation of operator proposals for improving control procedures encourage proposal development. Quick implementation occurs when respected senior managers can explain the proposals and the forecasted consequences to their firm. Designs advanced by staff experts benefit greatly when their proposals are subject to extensive positive and negative feedback from both operators and senior managers. Regulators who focus on prioritizing practices in need of change can also contribute significantly to rapid implementation.

7.0 CASE STUDIES: ACCOUNTABLE SELF-REGULATION

In 1982, Braithwaite wrote about "enforced self-regulation," an approach which assigns to the private sector considerable responsibility for designing internal control systems. Regulators are responsible for authorizing the performance standards and methodologies proposed by the regulated, and for auditing compliance. The advantage of enforced self-regulation is that it permits contingencies affecting the effectiveness of regulatory design to be taken into account. Firms, not regulators, assume responsibility for ensuring that the methodologies proposed are both feasible and effective, while regulators ensure that the effectiveness forecast is realized.

In 1986, Baar suggested at the Canadian Law and Society meetings that it is more appropriate to designate the above approach as "accountable self-regulation." Accountable self-regulation places emphasis on the external control imposed by both risk creators and regulators and, secondarily, on the policing responsibilities of regulators.

The present chapter will look in considerable detail at a number of approaches which approximate accountable self-regulation to various degrees. Existing cases of accountable self-regulation will be discussed with respect to the phases of program development mentioned in previous chapters, including diagnosis/assessment, system design, evaluation, and enforcement. Similarly, factors influencing the effectiveness of this approach such as internal expertise, union participation, perceived risk and regulator clout will remain important issues. Further documentation which can assist in developing an understanding of accountable self-regulation and the factors affecting its implementation is provided in materials contained in Volume III.

7.1 The British Approach to Accountable Self-regulation

7.1.1 Developing a Strategic Framework

The *Health and Safety at Work Act*, enacted in 1974, promoted the use of self-regulation to achieve safety within British factories, and mandated the Health and Safety Executive's Factory Inspectorate to implement the approach to regulation proposed by the Robens Commission in 1972. This approach sought to de-emphasize the use of detailed rules imposed by external agencies and the extensive use of legal sanctions; rules should be accessible and clear rather than provide detailed and complex instructions. Statutory duties and voluntary codes developed by employers were combined, reducing reliance on design or performance standards; no statutory regulation was to be used if the objective could be obtained through approved codes of practice. Thus, the Act encouraged the use of self-regulation and self-assessment.

The Robens Commission had assumed that employers should have the prime responsibility for improving levels of occupational safety and reducing rates of industrial disease, with workers being given a secondary responsibility. This distribution of responsibility was prescribed in order to promote greater awareness among employers of their legal obligations, consciousness of dangers, knowledge about control technologies and practice, and greater responsibility for implementation of company policies. According to the Commission's Report (1972), apathy among workers and employers was the greatest contributor to accidents at work. Thus, it assumed that what was needed was "a cooperative strategy in which the basic function of state inspection should be the provision of advice rather than the 'rigorous enforcement' of legal sanctions."[114]

7.1.2 Industry Specific Regulations

The Health and Safety Executive's (HSE) Management Board agreed to a new approach in 1977, namely to directing rules at specifying aims, principles, objectives or numerical standards. Such rules were to apply to a given hazard across all industries. Approved codes of practice established preferred methods by which industries would meet mandatory requirements and would be linked to regulations, not create statutory duties. Guidance notes would give authoritative advice and could be process or industry specific.

A reversal occurred in 1882, when approved codes of practice were linked to statutory duties, not regulations, in order to reduce rigidity. In 1984, a need was acknowledged for some regulations, though emphasis would continue to be on lower level rules. Recently, there has been a move away from across-the-board rules toward industry and process specific rules.

The inspectors involved in making the system work at the regulatory level are trained for two years. The training is aimed at providing an understanding of several key issues:

* how the legal system works;
* the main elements of civil and criminal law relating to health and safety work;
* the main requirements of the key statutes and subordinate regulations;
* how the courts have interpreted such requirements;
* how the factory inspectorate interprets and enforces legislation; and
* how to use requirements that relate to the industrial group in which they will be working.[115]

A one-on-one tutorial system provides an understanding of hazards in a particular industry, and conveys the legal significance of codes of procedure, standards, guidance

notes and other rules. Mid-career training focuses on the relevant law, since a knowledge of law is needed to justify authority.

Draft rules go to HSE economists, who map out potential costs and benefits. When approval is given by the HSE, consultations are held with "both sides of industry." Following formal approval, draft rules go to consultation. Advice is sought from the Health and Safety Commission (a tri-partite body made up of nominees from the Confederation of British Industry, Trades Union Congress and local authorities). Comments are invited from industry, government departments and HSE's enforcement officials. Drafts are revised and resubmitted to the Health and Safety Commission for final approval. On average, one must allow l60 weeks for the total process.

The greatest dissatisfaction with the process seems to be that rules are not conceived with enforcement in mind. This is the position taken by the union representing the inspectorate. Although "practicable duties" are easier to prosecute, they have been replaced by the much more vague "reasonably practicable duties." The duty to take "technically feasible steps" has been similarly replaced by a duty to take such steps as are "reasonable bearing in mind the balance of costs and benefits."

The role and function of the safety committees created by the Health and Safety at Work Act and its various amendments is summed up succinctly by Baldwin:

> The Act provided for recognized trade unions to be given the right to appoint safety representatives from amongst the employees ... . Representatives also have the right to call for the creation of a safety committee. [Their] functions are to investigate complaints, potential hazards, dangerous occurrences and accidents; to make representations to employers on these or on general health and safety matters; and to inspect the workplace either routinely or after an accident. The employer must assist the safety representative to carry out these tasks, documents may be copied and paid time off shall be given for the performance of these duties and for training. As for the safety committees, they have a general function of reviewing health and safety matters and of reporting to management on such matters as trends in accidents and disease at the workplace."[116]

A more effective approach to safety committees was developed under the California Cooperative Compliance Program, and will be discussed in detail in the second part of this chapter.

7.1.3 Employer Cooperation Under Self-regulation

Does self-assessment and self-regulation work? The 1980 rules concerning lead contamination provide an illustration of the minimal regulatory activity that can take

place in a self-regulated industry. According to Genn, employers were required to conduct assessments to determine exposure levels for employees. Smaller companies, who lacked the necessary competency, relied on inspectors to define the rules with which they must comply and how the company should comply. This approach proved very expensive. A study of compliance among employers in Leeds warned in writing that an inspector called to investigate the self-assessment undertaken found that only 53 per cent had carried out the required self assessments; 20 per cent of these were unsatisfactory. Most employers did not have the time to study the written materials. In spite of extensive publicity and distribution of guidance, very few employers proved capable of conducting adequate assessments.

Similar minimal efforts were found in another industry employing self-regulation. Genn (1987) interviewed managers at 40 agricultural and industrial sites in London, Kent, Sussex, Somerset, Bristol, Worcester, Newcastle-on-Tyne, East Anglia, Wales and Liverpool. Sites were selected to "provide information about very hazardous and less hazardous operations; ... on the degree of unionization among the workforce; to include firms with fewer than 100, more than 500 and between 100-500 employees and to represent a wide variety of work processes."[117]

Genn found that compliance was most likely among firms having:

i) hazardous processes or a well recognized health risk;
ii) a large number of employees;
iii) specialized safety personnel; and
iv) a high degree of unionization.

Compliance was unlikely when the following conditions existed:

i) no obvious major hazard or well recognized risk;
ii) a not particularly large workforce
iii) no safety personnel.

In such industries the emphasis is on completing production on time at low cost. Regardless of the forcefulness of the inspector's demands, they only take action under the threat of sanctions, and improvements will tend to be limited to the specific demands made by inspectors. These companies regard health and safety regulation as being imposed on them by the inspector.

Few of those interviewed by Genn were knowledgeable about the nature of regulation; those who were - mainly in large and hazardous firm - found that too much was expected of employers and that demands were still far too complex to be easily comprehensible.

Large companies whose processes were very hazardous adopted proactive approaches to compliance; these generally included the following characteristics:

* detailed safety policies;
* internal standards that might exceed regulatory requirements;
* individuals identified as bearing a special responsibility for health and safety standards;
* involvement of the workforce in safety matters;
* internal inspection procedures;
* close monitoring of accidents and near misses; and
* reviews of safety performance.[118]

In such companies, safety policy generally comes from the top.

Genn distinguishes between enterprises carrying out processes with potentially catastrophic consequences and those with high visibility, who are committed to being a good employer. As she points out, "neither survival of the enterprise nor humanitarianism account for compliance". However, if a firm is committed to complying with the law and wishes to appear responsible, the probability of compliance increases.

Genn concludes that while the Robens Commission hoped that employers would assume responsibility for health and safety, the evidence suggests "that this responsibility is voluntarily shouldered in only a minority of situations." She found that in large and hazardous industries, high-cost improvements will be made only if they are directly related to the main hazards in the industry, or if they have well recognized public relations potential, while low-cost improvements will be made as part of a general "good employer" safety program. Smaller hazardous firms will make high-cost improvements only if related to a main hazard, and less costly improvements as part of a general safety program. Small and nonhazardous firms will not make any improvements, either high- or low-cost, unless coerced by inspectors. Finally, Genn found that very few employers were prepared to enforce safety procedures. Enforcement only occurs "where hazards are immediate and grave."

Companies which have internal inspections are reluctant to release safety representatives from their job to participate in inspections. Consequently, the representatives are concerned about losing their job if they are hardline. Hesitancy breeds confusion; for example, workers feel it is up to management job to require use of safety clothing, while management maintains it is the duty of the safety representative to convince workers to wear the equipment. Neither wants to assume this responsibility.[119]

7.1.4 The Role of the Regulator under British Self-regulation

Firms that are well-intentioned but ill-informed are usually small or medium sized, and their risks are not major. The regulator keeps these firms informed, is accessible, and establishes a timetable for implementation of undertakings that corresponds to the firm's resources. Inspectors "combine negotiations with advice, education or information."[120] Inspectors in a self-regulation system are not intrinsically legalistic, but become so when dealing with ill-intentioned, ill-informed employers. There is a need to cast "a strong legal shadow" and to make clear that there is "consistent treatment between employers." The strategy for dealing with problematic employers depends on the risk level within the industry. Legalistic strategies dominate when the risk is great, while advice and information are provided when it is low.[121]

The role of the regulator, like the strategies he employs, is also affected by the perceived level of harm or risk. The behaviour of inspectors depends on whether the hazards are minor, serious, major or problematic, which is difficult to measure and define. Relations are less confrontational when hazards are minor; when they are serious, direct threats of notices or prosecutions are used and strict compliance is required. The emphasis on problems increases while emphasis on rules decreases. Finding a safer way to do the job becomes a high priority.

The combination of the above listed factors, namely the perceived risk, and the intention or knowledgeability of a firm also determines the choice of activity of the regulator. Advice is employed when compliance is not problematic, when there is confidence in cooperation, where risks are low, and when formal legal enforcement is not appropriate; it is given to the well-intentioned, when risk is low. The emphasis in advice-giving is on developing a safer system, that is, on brevity and simplicity, not on detail. Promotional leaflets, not codes of practice or regulations can be relied upon for effecting change. Promotional material is used where hazards are "difficult to counter by formal legal action."[122] Also, when enforcement might be problematic, informing firms about the availability of a better way is stressed.

7.1.5 Advice-giving: A Strategy for Self-regulation?

Advice must be accessible and practical and aimed at a specific audience. When targeting areas for change, the inspector should thus not spend too much time informing the ill-intentioned. In dealings with the well-intentioned, on the other hand, one needs to avoid over complicated and inaccessible rules. Instead, the regulator should focus on where accidents are happening and their particular causes. Inspectors are needed who are familiar with the industry and able to target their advice effectively. Thus, regulators are likely to stress solving problems by changing the technology rather than the working

systems or procedures. Demands on development and change of the internal control system within the company are kept to a necessary minimum by the regulator.

Baldwin discusses when advice-giving can be effective, and when its appropriateness is questionable:[123] "The position of the HSC is that the Act imposes on employers, not the Commission, the primary duty to provide information on health and safety matters to employees." A small company is expected "to organize the purchase of relevant documents and has to pay for the information that is there to encourage it to improve health and safety measures. ... Some inspectors and trade unionists argue that leaflets and guidance are only of value when there is an inspector to advise on them. ... [W]ith the decline of large-scale manufacturing enterprises in favour of smaller service industries, the quality of information channels so critical to the HSE cannot be guaranteed to remain constant. The Chief Inspector of Factories has himself noted that industry, because of structural changes, is less able to take on a self-regulatory role than it was." Consensual regulation is inadequately sensitive to ill-informed and organized employers. When "both sides of industry are not reasonable, well-intentioned and communicative ... it is especially difficult to advise, assist through inspection, consultation, use of the media or by published material."

In contrast to advice giving, education seeks to reorient, to transform assumptions and priorities. Emphasis is placed on getting the risk creator to do the thinking. In high-risk settings, special coaching is required and many resources must be expended. That is, emphasis shifts to "getting them to understand rather than telling them to do it.[124] The higher the risk, the more important it is that the risk creator be able to think for himself, especially when rules are vague. Process or procedure - methodology - become more important than rules.

In the area of evaluation, the regulator is minimally involved in intrusive monitoring of company activities or in independent data collection. Under these circumstances, the opportunities to exercise various enforcement techniques are relatively few, especially when compared to those arising under the American system. The exception is when a legalistic approach is necessitated by the firm's behaviour, and the company is brought to court. Nonetheless, it is the courts that exercise clout and not the regulators.

7.1.6 Matching Rules to Circumstances

On the basis of the research by the Oxford Centre for Socio-Legal Studies, it appears that good rules will not necessarily achieve all desirable objectives. Baldwin argues there is a need to "correlate rule types and regulatory objectives and to build into that analysis models of the different types of employer and workforce."[125]

The literature emphasizes the need to choose regulatory tools and incentives based on the severity of the hazard involved. Severe hazards require strict enforcement; yet, when hazards are severe the opportunities for development of self-regulation are greatest. Considerable potential for over-regulation exists if these opportunities are not seized. Severe hazards also require education rather than advice giving, as well as promotion and information, because of the importance of firms developing their own diagnostic and design skills. Within high-risk firms it is most important to develop effective internal control systems.

However, too much government concern about the cost of regulation - the cost of technological change - may result in a loss of opportunities to change the internal control system, an act that is an intrusive yet less costly regulatory component than control technology.

7.1.7 Summary

It is essential to recognize that self-regulation is an approach most likely to work in safety bureaucracies; it appears to be less useful for regulating occupational health than safety. Chances of effective utilization when risk is not high are small. However, advice giving can be employed among the well-intentioned and uninformed when self-regulation cannot. Among those with more problematic intentions, a greater need exists to regulate in the shadow of the law. If the inspectorate is to assume a diagnostic role, it is absolutely critical that compliance in full be closely monitored and as soon as it is not forthcoming, a legalistic approach should be introduced. Close monitoring of the degree of mitigation achieved and public access to results are of great importance.

Genn concludes that the self-regulatory system in the UK has had only a limited degree of success, and is only successful in large industries whose work processes are very hazardous.

The American approach to the use of health and safety committees - creating joint management labour committees[126] - seems to be much more effective than the British when it comes to developing proposals for changing practices and technologies and gaining their implementation by mobilizing support from both management and labour. The British tradition of voluntarism in labour relations and the resulting emphasis on industry dispute resolution procedures[127] and keeping disputes out of court is less effective than creating flexible structures which can mobilize and implement effectively proposals for improving rules and the patterning of work relations.

There is considerable evidence that, in Britain, there is too little emphasis on ongoing evaluation and effects monitoring. The need for adjustment of regulatory tools

by adoption of flexible structures[128] has led to the use of strategies which undermine regulatory effectiveness.

Only infrequently is compliance monitoring used to establish whether self-regulation is working. The program is not subject to the kind of auditing characteristic of American programs. Regulators do not focus their attention on improving the quality of company efforts to limit harm. Instead, monitoring identifies noncompliance and provides little direction to those not complying with guidance. Relatively little effort is expended on requiring compliance or sanctioning noncompliance. Thus, a great deal of noncompliance is forgiven and the prevention and mitigation of harm is undermined.

7.2 Accountable Self-regulation in the United States

The accountable self-regulation approach has been adopted by several private firms in the United States. The application of the program varies somewhat among firms. One major determinant of differences in application is the size of the firms involved, since large firms have greater resources available from which to design an internal control system than small firms, as well as requiring more complex changes.

The following section will profile the cooperation of some large private companies with this approach and discuss the particular issues concerning small firms. The California Cooperative Compliance Program (CCP), instituted by the California Occupational Safety and Health Administration (Cal-OSHA) and the United States Department of Labor Occupational Safety and Health Administration's (OSHA's) Voluntary Protection Program (Star level) will be discussed first, followed by a brief summary evaluation made possible by the similarity of the observations that can be drawn from both. OSHA's Consultation Exemption Program for smaller firms, and a discussion of the United States. Superfund's initiative for hazardous waste clean-up will round out the section.

7.2.1 The California Cooperative Compliance Program

7.2.1.1 History

The California program was instituted in 1979, with the federal program following in 1982. The CCP was designed to permit companies with exemplary in-house safety programs for the protection of workers to assume for themselves many of OSHA's regulatory responsibilities. In return, OSHA developed a more cooperative relationship with the companies and exempted them from regular inspections. Responsibility for monitoring compliance with OSHA regulations was assigned to a joint labour

management safety committee, which conducted inspections and investigated complaints. Cal-OSHA, the state occupational health and safety administration, monitored and assessed the workplace programs.

Originally, the program was developed jointly by the American Federation of Labor and the Congress of Industrial Organizations (AFL-CIO) Building Construction Trades Department and the National Contractors Association in an effort to prevent open shops. It sought to advantage unionized firms. Industrial unions within AFL-CIO opposed the program since they believed in tough enforcement. The federal OSHA also denounced the program initially, because of the industrial union opposition.

The cooperative compliance program began as a demonstration project which resulted from a 1977 resolution by AFL-CIO's Building and Construction Trades Department. The resolution advocated self inspection programs for construction sites, so that state and federal compliance officers could spend increased time inspecting nonunion sites. It further advocated implementation at selected sites as a prelude to the development of a national program.

However, on July l, 1987, the California Governor decided that the state would no longer be involved with regulating the private sector. This decision is under court appeal and an initiative will be on a voters' ballot in an effort to reverse it. Pending the outcome, responsibility for this program has been turned over to the federal department of occupational health, and programs are being assessed to determine whether firms qualify under the terms of the federal Voluntary Compliance Program.

7.2.1.2 Labour Management Safety Committees

The labour management safety committees that were an integral part of the CCP included two representatives from each side. It had the following responsibilities:

l. To deal with the changing hazard environment within the construction industry;

2. To act as inspector;

3. To facilitate communications;

4. To solve problems; and

5. To provide credible enforcement.

The labour representatives selected by the local building trades council tended to be seasoned journeymen - often those who had been instructors in apprenticeship

programs. Because labour representatives were on site, they were able to gather information about hazards quickly. However, they were prevented from acting as union stewards while on the committee. Management representatives were senior people with organizational clout, which was necessary if they were to be able to affect the behaviour of superintendents. The committee undertook monthly OSHA-style inspections and documented violations. The experience of the committee members and the shared responsibility for monitoring meant that many people could provide information and knew where to look for it. Moreover, the management representatives had sufficient power to ensure corporate action to deal with identified problems rapidly.

The labour members were able to talk to the workers in their own language. To be legitimate in the eyes of workers, the committee had to solve problems rapidly and effectively. Workers were only willing to monitor company compliance if convinced that such activity would result in action. If the company acted rapidly on the information provided, then employees would be encouraged to do more to assist monitoring. The OSHA rules were important to reducing labour management strains, and the regulators provided an important independent source, namely for mediation on issues where labour and management disagreed about whether a problem existed and/or on what constituted an appropriate solution.

7.2.1.3 Achieving Compliance: Cooperation and Compliance Officers

Due diligence was defined by imposing a general duty to provide a safe and healthy work environment; consensus standards were developed. The statute provided for fines of up to $10,000 for each repeat of a wilful violation, and imprisonment for up to six months for each violation. Maximum penalties doubled for the second conviction. Noncompliance penalties were administratively imposed, and appeals were directed to a specialized appeal board.

In dealing with violations, Cal-OSHA placed no emphasis on remedial action. Workers' Compensation rates promoted compensation for those injured, but not prevention or mitigation of the processes and technologies which proved harmful. However, experience modification rates (EMR), which allowed for differing contribution rates based on industry type and a company's record, encouraged investment in prevention because of the savings which could be realized.

Under Workers' Compensation itself, neither undertakings nor mitigation agreements were negotiated. Instead, prevention was promoted by the initial fear of regulatory costs and later by the EMR savings. Safety engineers were able to emphasize safety management - diagnosing problems in the company's internal control system and defining changes which permitted the company to operate with a minimum of error.[129] In this way, safety engineers became a "full-time partner on the management team not a

social welfare worker operating in an organizational vacuum."[130] Safety professionals changed their "status from 'outsiders' and 'intruders' to 'key members of the project team'."[131]

The company developed and refined training programs; safety professionals travelled to job sites to instruct supervisors and developed or revised training manuals based on OSHA standards. The company made it clear that personnel were required to obey statutory obligations, duties and requirements from the beginning. Failure to comply would lead first to verbal counselling, then to written warnings and documentation of noncompliant activities, and finally to termination. In the beginning, staff were instructed to treat compliance officers with respect; the relationship was not to be adversarial.

Under the CCP, a designated compliance officer (DCO) monitored job sites and defined safety committee activities. DCOs buttressed the authority of safety engineers, particularly in relation to subcontractors and strategic management. Monitoring compliance with OSHA standards remained the safety department's responsibility. To perform that responsibility, safety engineers needed to provide staff support to supervisors, diagnosing safety problems and designing "solutions." OSHA Compliance Officers lacked diagnostic expertise, but the DCOs employed under the Cooperative Compliance Program were selected for experience in the construction industry, amiability, level-headedness and capacity to be decisive; they also possessed diagnostic skill. Under the program, the regulator became a problem solver, was legitimized, and increased the clout of the joint labour management safety committee.

The DCO inspected companies in an effort to identify weaknesses in in-house programs which needed to be corrected. Monitoring was designed to promote improvement rather than to identify violations. In the role of auditor, the DCO became an effective advisor/consultant to the safety engineer and the labour management safety committee, assisting them in performing their tasks more effectively. The DCO acted as an adjunct to the in-house safety engineer; the threat of plant shutdowns increased the safety engineer's clout in bargaining with management for rapid implementation of recommended action.

The prime responsibility for monitoring compliance with OSHA standards, however, rested with the joint labour management committee. Supplementary monitoring was undertaken by workers through the safety marshall program, the weekly walk-around[132] conducted jointly by the project safety supervisor and the project superintendent, and by the DCO from Cal-OSHA. The safety monitor program, developed by DCOs to increase labour's involvement in safety (safety engineers, on the other hand, focus on increasing management's involvement) trained employees to increase the number of trained eyes seeking out hazards. The monitor's job rotated

weekly and included participation in tool box meetings, meetings with supervisors and availability to correct day-to-day problems.[133]

7.2.1.4 Enforcement and Behaviour Modification

Data from one of companies studied indicate that the average size of administratively imposed penalties under the CCP was very low. Between July, 1971 and December, 1983, the construction project was subject to 852 inspections. 1266 violations were cited, 180 of which were serious, while 1086 were not. Before appeals, the penalties assessed totalled US$100,613. However, the penalties actually paid totalled only US$49,713, making for a 49.41 per cent collection. Thus, the average penalty per inspection was US$57.67 and the average per penalty assessed was US$38.80. The project never received note of a repeat or wilful violation, and no one was imprisoned.[134]

Noteworthy in the CCP enforcement process were the various aspects of the incentive structure. Compliance was an investment for private firms that generated savings in labour costs and that avoided financial penalties. Eligibility to participate in CCP was a privilege only granted to organizations with an excellent record of mitigation. Participation permitted accountable self-regulation, supervision by a DCO who emphasized advice giving, problem-solving, training/teaching, and who provided technical information rather than policing compliance. The emphasis was on developing an increasingly effective internal system of safety management, which enabled the regulated organization to reduce its costs relative to its competitors. The experience rating system used by the Workers' Compensation developed because compensation through the courts was unlikely, uncertain and often inadequate.

The OSHA Act provided for experience modification rates (EMR) for the largest companies within the state, 20 per cent of the total number. This incentive proved to be a resource which the companies' safety departments employed to build their organization's commitment to safety. Workers' Compensation provisions proved a more effective enforcement tool than did OSHA penalties. (Yet, it was OSHA penalties which justified development of safety expertise and initial corporate commitment to voluntary compliance.) Through annual EMR adjustments, contractors with good safety records were rewarded while those with poor records were punished. Workers' Compensation no longer spread the risk indiscriminately; instead, it was "acting like a bill payment agency -- it pays the employer's bills and collects its costs plus profit."[135]

One of the companies studied had an EMR rating of 42 per cent, and as a result saved 2.95 per cent of its total labour costs. Use of experience modification rates to assess Workers' Compensation rates for the largest firms enabled them to earn insurance rates which were considerably lower than the industry average. Saving 2.95 per cent of

labour costs proved to be a very substantial privilege available to those with good records - one which enabled expenditures on safety to be viewed as investments.

The emphasis for safety engineers in harnessing the Worker's Compensation system was on specifying the costs attributable to the absence of safety. Safety engineers under CCP thus lobbied within their companies to have them move to a form of self-insurance. They developed an accident cost accounting system and identified the indirect costs of inadequate safety in an effort to change the view that safety is a nuisance and an impediment to profit. Self-insurance permitted them to specify in dollars and cents the costs charged against each project as a result of the absence of safety. "The ability to measure and report worker's compensation costs ... show[ed] management that safety is not only a humanitarian thing but a significant economic issue."[136]

However, relationships over time became adversarial and, increasingly, company employees were instructed to limit the information given to regulators. Increasingly, the companies contested the citations OSHA inspectors wrote. In the beginning, companies opted for informal conferences and tried to convince enforcement officers that they had erred in citing the company for violations. Nonetheless, unreasonableness and a lack of flexibility on the part of the regulators enraged the companies. They stopped using informal conferences except to find weaknesses in the agency's case in preparation for litigation.[137] Due to its "moral outrage," the company stopped cooperative problem solving and adopted an adversarial process.

The reactions of management and their impact on the program operation illustrate vividly the importance of regulatory management of interdependencies and the maintenance of fairness, as well as the appearance of fairness in dealing with involved interests.

7.2.1.5 Effectiveness of the Cooperative Compliance Program

Joseph Rees' (1986) thesis attempts to evaluate the effectiveness of the CCP. It begins with data covering seven construction companies, one of which began participating only after 40 per cent of a major project had been completed. A comparison was done between the safety record for the first 40 per cent of the project (19.5 million person hours) and for the last 60 per cent (29 million person hours). The accident rate before the program was 7.2 lost work days per 100 workers. After CCP, the accident rate was 4.3 days, constituting a reduction of 40 per cent. Overall, accident rates for CCP projects were significantly lower than for comparable projects.

Rees' thesis suggests that accountable self-regulation is preferable to self-regulation for companies with effective safety management systems, for several reasons. There is the need for the regulator to play a supportive role by increasing the company's

problem-solving capabilities and emphasizing broader participation in problem-solving. Company safety engineers, on the other hand, emphasize participation of senior management, ignoring the advantages of union/worker participation. DCOs can mediate conflicts between labour and management, acting as advisors/consultants, and they have legal authority which can be employed to increase the clout of the internal compliance personnel.

Rees makes it very clear that the purpose of regulation is to promote mitigation management rather than to enforce standards. Accountable self-regulation fulfils that purpose. Mitigation management requires an organized plan which top management is committed to implementing in full; that plan must be continually revised and constantly improved. But if it is to be effective, the plan requires credibility in the eyes of the employees as well as the managers. Mitigation management also requires engineering, planning, designing, assigning and supervising work operations to generate mitigation (Ibid: 238).

Rees also emphasizes the importance of moving Workers' Compensation from an emphasis on compensation to an emphasis on prevention and rehabilitation, that is on mitigation. While the emphasis on mitigation under CCP resulted in a significant increase in rates, that increase also provided the incentives needed to promote investment in voluntary mitigation. Such investment, in turn, permitted adoption of a minimally intrusive approach to regulation and significantly improved the magnitude of mitigation.

Rees further draws attention to several distinctive elements in programs based on co-regulation:

1. Assigning responsibility for monitoring and enforcement to a joint labour-management committee will only work if that committee is perceived as highly effective and willing to act quickly. The committee must demonstrate to workers in particular that something will happen.

2. The management representatives must be senior enough and have enough clout that top management will act quickly on joint committee recommendations, authorizing action and providing the resources required for rapid implementation. The involvement of senior management depends in large part on the ability of those within the organization promoting mitigation to sell mitigation as an investment not an expenditure.

3. The labour representatives need the craft expertise lacking in safety engineers in order to be effective, but they must also overcome the problem of acceptance by other crafts.

4. Emphasis is placed on the importance of separating mitigation problems from labour-management problems. Union stewards should be prevented from serving on the joint committee in an effort to ensure that safety problems assume a higher priority than other sources of conflict between labour and management.

Co-regulation also seeks to use workers as supplementary monitors, encouraging labour to report violations to internal enforcement agents rather than to regulators. The CCP program was commenced because unionized firms were inspected more than nonunionized firms, due to the fact that organized labour was more likely to report violations to regulators, who were required to respond to complaints. Regulatory costs were thus greater for unionized firms than for nonunionized ones.

7.2.2 OSHA's Voluntary Protection Program

7.2.2.1 The Nature of the Program

This program, the federal successor to the California Compliance Program, is resource intensive. Although a large outreach program was planned, it was never implemented. There are 51 sites nationally in the Star program - 24 are Mobil Chemical plants - and seven in the Merit program (equivalent to California's Reach Program and previously called Try Program). The Praise Program for low hazard industries was phased out in December 1987 for lack of interest. Only one company participated. Economic recession significantly reduced the number of companies participating in the Star level, when firms chose not to keep up the quality required to participate in the program.

Peggy Richardson, Head of the Consultation Branch of the federal OSHA stated that there were never any legal problems with the voluntary compliance program. "We have learned immensely from it about how to regulate. Effective regulation requires that companies manage better."

However, the program does not produce large-scale change in corporate behaviour because the companies participating are "good" to begin with. Its major value is that now consultation services or models are available from companies with good health and safety records. The participating companies are totally open and prepared to help other companies. As a result, OSHA is much better prepared to develop standards and give advice.

Thus, a great deal was learned about managing health and safety in the construction industry - the industry with the greatest problems. Construction varies greatly from one part of the country to another; contractor and subcontractor relations

are affected by the tightness of the labour market and the number of contractors. Effective regulation might be possible in Denver, but not in New York or Philadelphia, where the labour market is too tight. Health programs are needed at every construction site. All injuries for all subcontractors must be kept on one log and the owner or contractor must ensure that all subcontractors have the same health and safety programs. Unfortunately, standards for the Star level have become so demanding that construction firms are unwilling to participate. The two firms in California which had very good safety programs, for example, could not meet these standards.

A final comment by Peggy Richardson suggested that the original California program placed too much emphasis on labour management committees, who simply cannot bear all the responsibility. The Voluntary Protection Program had to strengthen management requirements.[138] With the strengthening of management requirements, fewer construction sites qualify for our program."

7.2.2.2 The Program in Practice: The Mobile Chemical Experience

Comments received from the company which has been most involved in the Voluntary Protection Program, Mobil Chemical, also serve to provide practical insight. Every Mobil plant in the United States has achieved star level - indicating the highest level of effectiveness - in the program. Mobil became involved seven years ago at the instruction of top management. One of its managers, during the author's interview sessions stated that "my boss told me that industry had complained for years that it knew how to mount excellent safety programs. Now we have our chance to prove that and so we have to do so."

Some of the comments received about the program during telephone interviews for the current study included the following points:

* It caused a deeper look at the safety program.

* Every step the company takes becomes a matter of public record.

* The program involves a lot of paperwork. It could be run with less, "but then it would depend on everyone being honest."

* The qualification process is very intrusive. It takes about a year to develop an application. A month after the application, a three-person team spends three days evaluating the site. The team includes an industrial hygienist, a safety specialist and a team leader. The team's written report then must get state or regional approval, followed by OSHA approval.

* OSHA does not monitor companies with good safety records, but monitors firms in this program.

* An evaluation process takes place every three years (reapplication is not required by OSHA but Mobil requires each plant to reapply). Re-evaluation increases the clout of safety engineers within Mobil Chemical.

* Participation produces lower Workers' Compensation and insurance rates.

* Nonunionization is not a barrier. When management is dedicated, and safety is a company objective, the program works.

* Different kinds of plants need different safety programs. Management labour safety committees have to be highly structured. Some rotate members while others use the same members for a long time. Keeping interest up is an ongoing problem.

* Certification can receive a great deal of attention, if handled as an event worth celebrating by management.

* Participants are able to build on what they learn through participation.

Mike Getto, a Cal-OSHA employee who had been involved with the CCP, stated that eleven companies had been included in the star level of the Voluntary Protection Program in California. He provided the following insight:

> An enormous amount of consultation between management and labour is needed to make the program work. If unions are consulted adequately, they will be very supportive of the program. The program is like the Neighbourhood Watch program used by the police. There will never be enough inspectors and thus there is a need to train the private sector to supplement inspectors. The major strength of the program is that it heightens safety awareness particularly among employees. It is a program whose time has come given the existing limits on government's resources."

7.2.3 Effective Utilization of Accountable Self-regulation

In summary, the California Cooperative Compliance Program and the federal Voluntary Protection Program provide the following insights into the effective utilization of accountable self-regulation:

1. Accountable self-regulation can be a very effective mitigation tool in the construction industry, an industry which leases a temporary workforce, relies extensively on subcontractors who don't want to be told how to do their job, and where the nature of work is constantly changing.

2. Accountable self-regulation requires an existing management system which realizes that mitigation management is an investment that can reduce organizational costs. Accountable self-regulation is a privilege to be earned on the basis of past performance, not an approach to be made available to all without regard for their history. Relatively few will both qualify and choose to participate.

3. A regulator can only perform a supportive role when the major responsibility for monitoring and enforcement is being performed effectively and when mitigation management has already become institutionalized. To be most effective, diagnostic inspection and the flexibility it permits requires an existing will and ability to mitigate harm on the part of the regulated firm.

4. The threat of substantial costs deriving from noncompliance can temporarily justify investment in mitigation. However, if the threat does not materialize and the actual costs prove minimal, then investment in mitigation will only continue if there are adequate incentives: substantial privileges which are likely to be withdrawn, significant costs to be avoided, or prestige to be lost. Hollow threats will have only a very short-term effect on investment patterns.

5. The regulatory effect of experience modification ratings will be realized fully only if there are lobbyists - advice givers with credibility in the eyes of strategic management - within a regulated organization who have the expertise and access to information needed to build a persuasive case for the savings improved mitigation can generate.

6. External control can generate accountability. To generate responsibility, insiders must give reasons that are responsive to the priorities and norms of those whose behaviour is to be changed.

7. Supplementary monitors will provide information only if they are convinced that it will be acted upon. Failure to act threatens future access to information.

8. As discussed in previous chapters, effective regulation requires access to expertise to provide custom designed advice to:

   (a) fit the operating problems of a given enterprise in order to gain support from operators which would facilitate implementation; and

(b) demonstrate that expenditures are in fact investments which will generate sizeable returns.

Also required are internal lobbyists able to generate the clout required to get action on the advice of experts from management and the support of those who are responsible for implementation. Clout from those outside the organization will facilitate the above.

7.2.4 The Consultation Exemption Program

7.2.4.1 Background

The programs discussed above have been employed only in relation to very large corporations and projects. The same approach cannot necessarily be applied for and by small companies. The Consultation Exemption Program, developed by OSHA in the United States, is often referred to as the Small Employer Voluntary Compliance Program. Its purpose is to exempt companies who meet certain criteria from OSHA's general inspection programs for a period of not more than one year. Firms with fewer than 10 employees are automatically exempt from general inspection under OSHA, and do not require this program.

The Consultation Exemption Program was initiated in 1984. The federal government has entered into cooperative agreements with the states for development of such programs, and bears 90 per cent of the cost of on-site consultations. The goal of the program is to permit companies without the ability to hire safety professionals to develop diagnostic and design capabilities of their own so that they can create and implement a program suited to their needs. Some of the states limit the maximum number of years for which a firm can remain in the program; others do not. The federal government does not yet require a limited time frame as a condition for funding.

In 1988, 477 small, high hazard companies were participating in the program. The eligibility criteria prevent those businesses which are not site-specific. primarily construction and oil drilling, from participating.

Otherwise, companies are spread over a wide variety of industries. In some states such as Colorado and Georgia the program is run by the universities rather than by the state departments of occupational health and safety. Thus, Colorado State University and Georgia Tech run the programs in their states. The former is considered to be the most successful program in the country because of the quality of consultants made available to businesses.

7.2.4.2 The Nature of the Program

The Consultation Exemption Program begins with an on-site consultation which must be requested by the company. This involves a wall-to-wall inspection, aimed at identifying all existing and potential safety or health hazards. The second stage, if requested, involves the development by the consultants of a custom designed health and safety program for that company, and, if needed, development of appropriate educational and training programs. If the firm agrees to correct all identified hazards and problems, and to establish a health and safety program within a period not to exceed one year from the time of the closing conference, and if that program becomes operational, then the firm is exempt from OSHA's general inspection program for a period of not more than one year.

Renewal occurs annually. If the firm was above the industry average in loss-of-work incidents, then the gap between the firm and the industry average must decrease by at least one-third for the company to gain re-entry. The gap must be reduced by at least two-thirds to participate for a third year, and must be eliminated by the end of that time. Participants receive a certificate of recognition similar to that provided under the Voluntary Protection Plan's Star program. The major emphasis throughout is on developing effective health and safety management systems.

7.2.4.3 Program Evaluation

The main reason companies participate in the program is to reduce incidents causing loss of work. The recognition they receive is not a major reason for participating in the program, because the firms are small and reputation is generally of less import to them than to regionally recognized firms. The firms which choose to enrol in the program are already highly motivated, and participate because they lack the knowledge and expertise required to develop a voluntary compliance program. The exemption itself is not a major motivator.

The major difficulties for the federal government have been with effective monitoring of state programs. States make the initial determination of whether a company is eligible for inclusion in the program. The federal OSHA merely receives the letter of intent from the employer,and does not look at the case file until later. There is a deplorable lack of uniformity in eligibility criteria from state to state.

"The program has been useful in assisting us to better understand the obstacles to compliance which companies face," noted Greg Baxter of OSHA. "It helps us know what kind of standards can be met and the difficulties that might be faced by [highly motivated] firms trying to meet them." Stated another way, the program assists OSHA in

the redesign of standards which attempt to make achievement feasible for highly motivated companies.

The Consultation Exemption Program recognizes that well-intentioned small firms lack the knowledge and expertise to comply with standards. Sanctioning such firms for noncompliance would be an offensive way to gain compliance. Instead, if compliance is desired, the government must assume responsibility for providing highly competent advice and bearing the costs for the consultants needed. The government is prepared to do so as long as the firm is committed to implementing the advice provided.

The feedback gained from working closely with small companies provides the government with a better understanding of the obstacles to compliance and the methodologies available for eliminating those obstacles. In this way, standards can be modified to increase feasibility and to create an environment where highly motivated companies can comply; noncompliance can then be demonstrated to be due to the inadequacy of motivation.

7.2.5 Summary of the Three Programs

The discussion of the three American programs reflects just how small the number of companies wishing to improve the effectiveness of their safety programs actually is. Custom design of programs to the needs of the companies concerned is rarely desired, despite the fact that it would ensure that the definition of due diligence and the methodologies for achieving it are appropriate to the particular company. Developing a feasible approach to achieving compliance is obviously not an activity which is voluntarily undertaken by large numbers of firms.

This lack of interest suggests that most firms are not "good apples" and that, as Scholtz (1984) states, accountable self-regulation assigns regulators a role very similar to that of the insurance loss control consultant - helping the highly motivated to discover the cause of violations, and sharing with them information about known correctives. Under these circumstances, argues Scholtz, regulators must withdraw the privileges granted as soon as an audit suggests cheating. Auditing must occur relatively frequently if this is to be achieved.

Auditing under these programs must be much more comprehensive than that undertaken by most inspections since the objective is to identify the causes of violations, not merely whether violations exist. The goal of the audit is to identify ways of improving harm control and reduction. Most risk creators seek to do as little as possible, for as short a time as possible, and at the lowest cost possible. Recognizing this helps to understand why the variety of programs which economists argue will increase innovation

consistently fail to do so: the will to do better is unlikely to exist. The desire to exceed minimal standards is a deviation from the norm.

Innovation will not be promoted by granting variances and reducing the standards to be met. Instead, the emphasis must be on encouraging the very small numbers of highly motivated firms to experiment with new methodologies. Yet, it is always important to remember that the high degree of motivation is unlikely to persist indefinitely. Thus, it is essential to audit carefully so that the privileges granted to this elite are withdrawn as soon as motivation declines. Failure to respond to changed motivation can contribute to abuse.

OSHA treats the Voluntary Protection Program and the Consultation Exemption Programs as demonstration projects, which can be used to identify what is possible among the highly motivated. These programs provide important evidence to counter the claims of those wishing to do very little that achievement of standards is not feasible on economical or technological grounds. As a result, such demonstration projects are an important component of the regulatory repertoire.

However, it should never be expected that all or most firms will act as the elite do. One cannot generalize from the small numbers of highly motivated firms to the large numbers of those lacking motivation. To do so would create false expectations which will not be met.

As has been evident in the discussion thus far, accountable self-regulation programs assign regulators three responsibilities. The first is to authorize performance standards which will minimize the outrage experienced by involved parties by limiting the probability of both undercontrol and overcontrol. The second is to employ an auditing system designed to ensure a close correspondence between the law in action and the law on the books. The third is to use the auditing system to promote increasingly effective prospective and retrospective action to reduce harm.

7.2.6 A Different Approach to Accountability: Cleaning up Hazardous Waste in the United States

7.2.6.1 The Superfund Legislation

Joint decisionmaking is also required among the multiple parties responsible for cleaning up toxic waste sites. A major purpose of the United States Superfund legislation was to assign joint and several liability for remedying the consequences of harm, and to permit the regulatory agency to require remedial action rather than relying on the uncertainties of litigation to ensure a remedy.[139] However, if regulators and

those who have created unacceptable risks work closely together towards settlement agreements, their legitimacy in the eyes of risk bearers may be undermined and tougher legal action may result.

The Superfund legislation provides for final site clean-up of hazardous waste. The most hazardous sites are given the highest priority, and are included on the National Priorities List. Clean-up is the responsibility of Environmental Protection Agency (EPA), which carries out preliminary assessments of discovered sites, site inspection, the decision regarding inclusion of the site on the national list of priorities, and the search for responsible parties. Parties are sent a notice letter providing them the opportunity to develop remedial action. Tight time deadlines are established.

7.2.6.2 Contracting for Expertise

Rather than adopting the approach to regulation pursued on Australia's offshore developments, the EPA contracts out educational, diagnostic and design responsibilities while retaining auditing responsibilities. Organizing the parties quickly is the first major task. Instead of EPA assuming responsibility for organizing the parties, third parties such as Clean Sites Inc. (CSI) and the American Arbitration Association may be involved in some or all of the stages leading up to a settlement agreement.

Each potentially responsible party (PRP) in receipt of a notice letter promptly seeks to limit its share of the clean-up cost. At the same time, EPA is not interested in settling with a group that is not responsible for most of the waste. Third parties "provide a meeting place, help set the first meeting agenda, and contact government agencies on the status of the site to help get settlement discussions under way."[140] They facilitate organization of a steering committee and legal, technical and allocation committees.

The problem of remedial design faced by PRPs is a complex one, likely to generate the following disputes:

* Who are the properly involved parties?
* What technical evaluations are needed to determine the scope of the problem?
* What type of remedial action is needed?
* How are costs to be allocated among PRPs?
* How is the settlement to be structured and carried out?

While a great deal of expertise is needed to resolve these issues, EPA does not want its staff involved since it is responsible for negotiating a final settlement for remedial action, and a conflict of interest could arise. Rather than having different branches within EPA assume responsibility for policy setting, advice giving, education and adjudication, advice giving and education are contracted out.

Although CSI defines what it does as alternative dispute resolution or mediation, it also facilitates communication and educates the parties about the Superfund process. It assists the parties in organizing themselves for collective action, often encouraging reduction in the number of parties by developing buy-out agreements relieving smaller contributors of their responsibility. It ensures companies represent all key interests, and provides data and analysis needed so that costs can be allocated among the parties. CSI also assists parties to reach agreement on an allocative mechanism which will be viewed as legitimate. These activities involve much more than mediation.

CSI functions as an expert consultant with extensive knowledge of the process. Providing the technical expertise needed to identify feasible remedies and to evaluate their relative cost and effectiveness is not mediation. However, it is an essential component of the design process. If PRPs are to arrive at a consensus on the choices among alternative remedies, the parties must understand each other's priorities and the zone of acceptable and unacceptable trade-offs. Defining that zone is a process which may involve mediation. It is perhaps more accurate to suggest that CSI acts as a consultant in a hostile environment.

7.2.6.3 Dispute Resolution and Design of Remedies

Under the Superfund legislation two alternatives are available: the responsible parties can design their own settlement agreement, or EPA can do it for them and then bill the parties for the costs incurred. If EPA is responsible for the remedial investigation and feasibility study, the responsible parties bear the costs without having input into the design proposed.

When the draft proposal is subject to public comment, there are often significant disputes among the parties. The disputes occur later when the draft remedial investigation and feasibility study are made subject to public comment. If PRPs are not involved until the public comment stage, the settlement would be for a larger sum (i.e., the cost of the remedy as well as all of EPA past costs in carrying out the investigation and feasibility study) and the parties would be confronted by a process with which they are not already familiar. Indeed, one of the principal advantages to PRPs carrying out the investigation and study is that it gives them a significant role in determining the remedy. In addition, they have established working relationships with the other players.

The next stage involves developing a method for paying for the cleanup and negotiating an acceptable agreement with the governments involved. Clean Sites Inc. assists the parties in determining how the site has contaminated the environment - through air, surface water, soil or groundwater - and assessing risks and evaluating cleanup alternatives. "Historically, differences among involved parties over technical remedies have encumbered the cleanup process, resulting in substantial lost time and

money. ... At some sites, CSI evaluates whether the design and execution of the cleanup studies will provide alternatives for technically sound cleanup plans. CSI also has helped responsible parties and government agencies by evaluating the technical remedies under consideration to increase the likelihood that the most effective technical remedy is selected."[141] The final settlement for the remedial action must be in the form of a judicial consent decree.[142]

The General Accounting Office (GAO) notes that negotiating a settlement often requires two or three years, while the actual cleanup may consume an additional one to two years.[143] GAO analyzed 39 settlements. In three cases, EPA found that "the responsible parties intentionally biased the reports by misrepresenting the extent of site contamination in an effort to obtain less extensive, and probably cheaper, remedies."[144] In 54 per cent of these cases, there was delay in meeting settlement terms. There were problems in the clean-up whether performed by the parties themselves or EPA. More emphasis on quality assurance review was needed. In a 1984 study, the Environmental Law Institute found no difference in cost effectiveness between private and public projects.

Involving as many as 850 PRPs in the design of a remedy and its implementation requires a great deal of communications skills to enable the voices of so many parties to be heard. The opportunity of responsible parties to design and implement a remedy themselves rather than leaving it to the government and merely bearing the cost is a very attractive feature of this approach to regulation. Although there is not yet adequate empirical evidence for this assumption, the process may reduce the degree of moral outrage experienced by those required to pay for remedial action. As well, the consequences for investing in action to prevent harm may be quite different since one would expect parties who have been involved in design decisions to develop greater understanding of how design can reduce future liability.

7.2.6.4 Evaluation of the Program

The process of delegating some of EPA's regulatory responsibilities to a nonprofit organization such as Clean Sites Inc. has been legitimized in two ways. First, on April 24, 1987, EPA issued a memorandum entitled "Role of Clean Sites Inc. at Superfund Sites."[145] The memo authorized CSI to engage in informal mediation and praised the contribution it made to settlements and cleanups. On August 14, 1987, EPA issued its "Final Guidance on the Use of Alternative Dispute Resolution Techniques in Enforcement Actions."[146] That document "opened the door to both informal and formal mediation efforts between PRPs and EPA."[147]

CSI devotes considerable attention to designing remedies and implementation processes so that citizens will not be outraged. Preventing law suits by citizens is a major

objective pursued in the development of settlements, which are submitted first to EPA and then judicially lodged. Both the process used to develop the settlement as well as the design of the settlement are given careful attention.

Having delegated diagnostic and design responsibilities to private organizations such as CSI, EPA is better able to audit the final settlement for remedial action - the mitigation proposed and the distribution of obligations among private parties and governments. It can focus very clearly on both feasibility and adequacy of the forecast harm reduction, and can devote attention to establishing performance standards and ensuring they are met. Stated another way, by delegating the educational, diagnostic and design responsibilities often assumed by regulators, EPA is better able to engage in accountable self-regulation.[148]

7.2.7 Summary: The Regulator's Role in American Self-regulation Programs

The different American versions of accountable self-regulation produce some variation in the role of the regulator. In the area of waste cleanup, EPA delegates to CSI regulatory responsibility for acting as an interpretor/translator of legal requirements to PRPs, gaining their consent to legal obligations, and promoting responsiveness on the part of PRPs to the concerns of risk bearers. As well, CSI assumes the teacher and advisor roles, so that EPA could perform its evaluator role more effectively.

In the case of the Voluntary Protection Program, the interpretor/translator, teacher and advisor roles are assumed by the safety professionals employed by risk creators. This enables EPA to concentrate on performing the evaluator role.

The Consultation Exemption Program recognizes that small firms lack the knowledge and the expertise required to effectively interpret/translate legal requirements, or to teach and advise on how to design internal control systems effectively. The regulators fill such roles for a limited period while management acquires increasing competence to perform these roles. Less emphasis is placed on evaluation of compliance during this learning period as long as performance standards were met.

7.3 The Australian Approach to Accountable Self-regulation

7.3.1 The Certificate of Competency

The Departments of Mines in Australia's various states have adopted an approach to regulation which Braithwaite (1982) terms "enforced self-regulation." This system of regulation differs markedly from both the American and British approaches. At its heart

is the certificate of competency, which registered mine managers are required to hold. In addition, accountability for safety is clearly fixed by statute: it rests with the registered mine manager.

Certificates of competency are required of all individuals engaging in high-risk activities within Australia. The purpose of this permit system is to ensure that those in high-risk industries understand their obligations under the safety regulations and have the diagnostic and design capacities required to develop and implement effective procedures and technologies for ensuring that work is conducted in a safe manner. The certificate of competency can be withdrawn following a hearing which is held whenever a major accident occurs. The purpose of the hearing is to establish the cause of the accident and to suggest changes in regulations which might improve future prevention. Mitigation is not addressed at such hearings.

The certificate of competency is designed to motivate those in risky industries to act safely. Failure to do so can result in occupational disqualification. Not only must the mine manager hold a certificate of competency; in addition, the company must register one individual who is to be held responsible for company safety. Thus, liability is clearly established. It is the responsibility of the registered mine manager to ensure that operators and supervisors act in a safe fashion. Consequently, adequate education, training and enforcement are the mine manager's responsibility.

Grabosky and Braithwaite, in their series of interviews with Australian Mines and Energy officials in the various states, obtained the following insights into the practice and effectiveness of this approach to accountability:

* Personal responsibility for safety lapses improves the care taken with hazardous procedures.

* The industry is encouraged to regard the regulations as the minimum standard of safety and health provision. Regulations only have to be administered in the case of risk creators who regard them as the maximum standard.

* The regulator's role becomes primarily one of education, of seeking cooperation and only as a last resort one of hard administration and prosecution.

* This system of operation depends upon the inspectors' powers of persuasion rather than his legal authority.[149]

* Individual companies are encouraged to promote their own safety program and their own in-house rules. Inspectors sit in on the discussions that take place at the time that these are being formulated and they make their contribution.

* Legally, the most difficult problem is when middle managers are to blame for inadequate safety.

In Western Australia there is a general obligation that no one shall work or be employed, or be permitted to work underground unless (a) he has been instructed of the type of work required of him or (b) has satisfied the manager or person in charge of the underground operations of his competence to do that work. Companies have a common-law obligation to see their people properly trained. Almost every company has its own in-house safety rules booklet; some even write booklets on the operation of individual machinery. Because of the variety of equipment used in mining on a big scale, a certain amount of discretion is advantageous.[150]

Explosives manufacturers are required to prepare their own safety rules. The rules are then approved by the Department's explosives branch, and the manufacturer can be prosecuted for any violations. However, prosecution is not needed because managers of those factories take the disciplinary steps needed. In Queensland, the legislation provides that if the person who supervises the operation of several mines chooses to give the manager a direction in respect to the operation of the mine which the manager believes to be unsafe or unacceptable, he has the right to ask for that direction in writing. Beyond that there is a specific statement that no person shall direct the manager to do anything which is contrary to the statute.[151]

7.3.2 Workmen's Inspectors

Workmen's inspectors have the power to inspect whenever they want, with all the powers of a district inspector except the power to launch a prosecution on their own right. This has to be referred to the Senior Mining Engineer. They can shut down an operation in a mine underground, but not in a treatment plant.

Workmen's inspectors are employed by the Western Australian Department of Mines. In Queensland, members of the Colliery Employees Union appoint inspectors at individual mines to undertake safety inspections, as well as up to three people who have authority in any mine throughout the State.[152] The union pays their wages but the Department provides a subsidy of $3,000 per quarter. There is no statutory requirement for safety committees. In Western Australia, such committees are supported but not actively encouraged.

7.3.3 Regulations in Victoria: Differentiation by Industry

In Victoria, significant differences exist between the way regulation is organized in quarries and mines and the way it is handled at offshore oil sites. The state's

Department of Mines and Energy assists in locating oil sites, and divides them into permit areas which are auctioned off, as it were. It requires a working program from the explorer as to how many wells he is going to drill and how he is going to go about it, and supervises the exploration. Conditions govern the conversion from exploration to production, production itself, as well as the reclamation of the site at the end and the removal of the platform.

This form of regulation is much more intensive; an inspector or a group of inspectors is present the entire time. Ministry supervision can go down to extreme levels of detail, such as who goes out on a helicopter; the entire operation is under licence.

Because of the implications of offshore operations for the country as a whole, and the political considerations which flow from them, this comprehensive framework of regulation is unlikely ever to be dismantled and converted.[153]

Licensing the whole operation is contrasted with licensing mine managers or other personnel. When supervising small mines, often one-person operations, a set of conditions are put on the claim before it is registered and the inspector inspects compliance with those as well as the various regulations which exist. A self-regulatory regime there is deemed impracticable.[154]

Each of the 210 municipal units in Victoria has an extractive industries advisory committee who consider each application for a licence or renewal. The public can come forward with complaints. The need to renew the licence required to operate a mine thus provides an opportunity for the public to participate in assessing eligibility, and increases the likelihood of discovering problem operations.

Effects monitoring is conducted by issuing in the Department's coal mining branch notices and details of significant incidents, including events which have resulted in personal injury or damage to property, or even "near misses;" these are circulated to all mines. Companies are required to monitor problems (dust, for example) and provide the Department with the results.[155] On the spot correction is the name of the game.

Each mine is by statute required to keep a record book. Every time a government mining engineer or inspector visits a mine, he has to record the result of this visit in the record book; invariably he will give instructions on certain works to be carried out. The record book is an instrument of law, and the inspector may set a time limit on the actions he requires. He can prosecute for failure to comply if necessary.[156]

Misdemeanors at a mine which are registered by either the manager or the mine workers are taken care of amongst that group by standing down a person for a specific number of days. In extreme cases, that person is dismissed from service. In the most drastic cases, the mine manager is called before the Board that issues certificates and is

asked to show cause why he should continue to be allowed to practice as a mine manager.

7.3.4 Summary

The case study of the Australian mining and energy regulations provides considerable insight into the use of permits for regulatory purposes. Safety regulation relies on dual permitting - the need for site approval and the need for managers and those performing dangerous tasks to have certificates of competency. Those possessing such certificates are authorized to develop those procedures for limiting harm which are best suited to the specific site in which they operate. Should the procedures and practices prove inadequate, they are liable and they face the possibility of occupational disqualification. Permits are used to impose the obligation to act safely on those with managerial responsibility. Designing and ensuring the effective operation of an appropriate internal control system is the manager's responsibility.

The rights and obligations of managers and employees are spelled out in detail since the design principles are well known, although differences from one location to another means that there must be many exceptions to the rules. Perrow defines such situations as requiring engineering skills.[157] In the case of the offshore operations, where the appropriate principles for designing effective methodologies are not clearly defined because safety procedures and technologies are just evolving, ongoing reciprocal interdependence between the regulator and the risk creator is required because the task to be performed is nonroutine.[158]

When regulating very small mines, conditions of consent are imposed on permits issued. Such conditions elaborate on the regulations, specifying exactly what a risk creator without diagnostic and design skills must achieve. To achieve compliance in the absence of internal sources of expertise, the rules to be met by small mines must be more explicit and more specifically targeted.

When companies are large and expertise is available, the experts are held individually accountable for the design of appropriate and effective safety policies. They are assumed to have knowledge of their obligations and the competency needed to engineer an appropriate strategy. When the company is large and design principles have not yet been developed, extensive experimentation is required. In order to make progress, close consultation between regulator and risk creator is necessary. Decisions under those circumstances cannot be made without the regulator's authorization.

7.4 Conclusions on the Accountable Self-regulation Approach

Discussion suggests that accountable self-regulation can be most effectively used when experts exist who have available to them well-established principles of design. Promotion and targeting can be used when a routine design is employed and when few exceptions are required because of a stable environment. However, while promotion and targeting may promote relatively high rates of compliance as long as procedures and technologies are simple and low in cost, this does not constitute self-regulation.

Co-regulation between risk creator and regulator is needed at only one stage in regulatory development - when design principles are complex, costly and not well understood or subject to continuous change. Under such circumstances close coupling is required so that risk creator and regulator can give one another advice and evaluate it carefully. This form of regulation involves joint decisionmaking, that is, co-regulation.

Accountable self-regulation requires that the regulator focus on the auditing role, while the consultant's role is delegated to someone else with expertise. The dilemma faced is whether the consultant should be part of the public or private sector, and whether her services should be financed by public or private money. The Consultation Exemption Program provides for public financing of private consultants. The California Cooperative Compliance Program, by way of compromise, supplemented the consulting activities of private safety professionals with publicly funded designated compliance officers (DCOs), who focused their attention on promoting effective implementation of advice first advanced by safety professionals and then refined in response to feedback from operational personnel and senior managers. The Voluntary Protection Plan, finally, views design as a private responsibility and addresses the auditing and dissemination functions.

Among all the approaches discussed above, the British approach appears to be the least effective for several reasons. First, no one is responsible for systematically assessing performance or addressing ways how things could be done better. Compliance is audited while effects are not. Second, not enough attention is given to the design of effective implementation processes. Third, more emphasis is placed on whether the advice tendered is being used than on improving the control of harm; any attempt to use the advice offered is defined as compliance, and the consequences of forgiving noncompliance are not addressed.

When the private sector has invested in obtaining consultants then, in order to avoid moral outrage, the regulator must function as an auditor. Since a good audit requires that the auditor give advice on how things can be done better, the auditor must be very expert and must recognize the importance of the disseminator role. But a number of questions remain:

- Should the private sector be required to pay for consultation provided by those other than auditors?
- Or should the private sector only pay when custom design is required?
- Must the consultative role and the authorization role played by regulators be segregated?

These issues remain to be resolved in the further development of accountable self-regulation.

8.0 DELEGATING RESPONSIBILITY FOR REGULATORY DESIGN AND EVALUATION: THE CONDITIONAL APPROVAL PROCESS

In a conditional approval process, private firms seek to obtain licences for engaging in activities involving risks. However, a licence requires the plans for the activity to be approved and authorized. Typically, providing such authorization is a regulatory responsibility; the participation of the public in the authorization process varies according to the established procedures. The other important aspect of regulatory activity in this approach is the monitoring of effects and the determination that the activity is taking place according to the terms of the authorization.

The conditional approval process is aimed at preventing or minimizing harm by modifying potentially harmful activities, both upon initial application for and renewal of the permission to engage in them.

In part, this chapter will ask when private parties can assume some or all such regulatory responsibilities, and whether the role of private parties would displace or complement the role of the regulators. If private parties are to replace regulators, how is adequate accountability for delegated authority to be assured? The issue being raised is which of the roles regulators have traditionally been assigned can be privatized, and under what circumstances.

Related and critical issues to be discussed thus concern who is to be involved in the authorization process; whether authority for defining due diligence can be delegated and to whom; how public undertakings are, and to what degree the regulatory instruments used to impose undertakings are legally binding; and finally, whether the delegated authority has been employed to reduce harm effectively.

Several international examples of the sources of the authority behind conditional approval processes exist. Final settlement agreements spelling out how the harm from toxic wastes is to be remedied, for example, become legally binding when the agreement is registered with the court. Franchise agreements in Australia acquire legal authority because they become part of statute law through parliamentary approval.[139] In another example, commissioners of inquiry impose conditions and require bonds to ensure that permit conditions are met. Finally, consumer protection authorities negotiate assurances which become legally binding when the assurance is not met.

By contrast, trade in emission permits in the United States, a case to be discussed below, enables some firms to receive performance credits, which have been purchased rather than earned, but which reduce the obligations to be met. Authority to recognize such credits is discretionary, however, and not legally binding.

The process of negotiating undertakings generally may or may not involve risk bearers: government may decide unilaterally or seek advice widely, and either early or late in the design process. Thus, if potentially responsible parties (PRPs) design remedial action for hazardous waste cleanup, the views of risk creators are given considerable weight, but so are the perspectives of regulators who must approve the design and of risk bearers who can veto it. In the conditional approval process, however, advice is sought early on and continuously. The views of regulators on feasibility are likely to play a larger role than those of risk creators. When the Australian Department of Primary Industry and Energy chooses to implement American or Muslim designs to prevent harm perceived by American or Muslim importers, Australian producers have no input. Instead, they agree to the design in order to gain access to profitable markets. Under such circumstances, implementation may be difficult because the harms to be controlled are poorly understood. The interpretor, teacher and advisor roles of regulators assume considerable importance, for without them, compliance would not be forthcoming.

8.1 The American Approach to the Conditional Approval Process

8.1.1 Tradeable Air Pollution Permits

In response to economists' arguments, the EPA in the United States permitted substitution of emissions between sources. Economists argued that the best way to reduce emission levels was to define minimal performance standards needed to improve air quality, and to define all performance exceeding the minimum as eligible for authorized "credits." These could then be used to reduce the degree of control of emissions required at other sites or at future points in time. The approach enabled firms to reduce the level of performance required under certain circumstances to less than that deemed necessary for minimal prevention/mitigation.

Not surprisingly, this approach generated public outrage as well as litigation. Since permits could be used anywhere at any time, their use was particularly opposed in nonattainment areas, that is, in those areas of the United States which did not currently meet minimal air quality standards.

The policy assumes that air quality is affected by the quantum of emissions, not by their composition. Interaction effects among emissions are ignored so that they can be treated as though they were interchangeable. This assumption is necessary if auditing of trades is to be kept to a minimum. The distinction between attainment and nonattainment areas provides a very crude proxy for the severity of the air quality problem to be considered in the authorization process. Design can thus be affected by

location, but differences among nonattainment areas are not taken into account when assessing the design.

The economists further predicted that allowing firms to trade in permits, rather than merely to use credits as needed, would create assets with a value to be determined by market conditions. If one could create assets by exceeding minimal standards, they postulated, firms would have an incentive to develop technologies permitting more effective control of emissions. Tradeable air pollution permits were designed to leave the design of emission reduction schemes to individual firms, thus to encourage innovation and investment in new, more feasible technologies.

While the fallacies of this way of thinking are obvious to the more ecologically conscious reader of today, EPA proceeded to refine the scheme over several years. Netting, first permitted by EPA in 1974, allows an expanded or remodeled plant to escape review if the change does not cause a significant net increase in emissions. Netting was allowed only in an attainment area, that is any region which had attained minimal national air quality standards. In 1976, EPA developed an "offsets policy" which could be employed in areas where air quality standards had not been attained. The offsets policy allowed direct sales of emissions permits between companies. In 1977, amendments to the *Clean Air Act* modified that policy.

There was a period of tough enforcement at EPA from 1977 to 1979. During this period, trade had to be between comparable pollutants, each emission point had a specified emission limit, noncomplying sources could not participate, existing compliance dates could not be extended, and no delays of existing enforcement actions were permitted. There was a revision in 1979 and for the next two years a "bubble"[160] could involve multiple plants. It enabled the owners of a plant to increase emissions from one source if they decreased levels from other sources at the same plant. In 1981, in light of the recession, the rules were further liberalized. In 1982, however, a court decision held that netting in nonattainment areas was beyond EPA's authority. In 1986, a new emission trading statement established tighter rules.[161]

To facilitate trading, emission banks were established. If emissions at a source are reduced below the standard, the owner is given credit by EPA for the emissions reduction. EPA acts as a bank, taking deposits of credits which can be withdrawn later by a new or expanding plant, or the credits can be sold to other firms. Currently, tradeable air permits are reviewed by regulatory officials on a case-by-case basis. Eligibility requires that a plant be in compliance with standards prior to trading, and new facilities must remain in compliance with new source performance standards. Source-specific technical standards are used as a baseline.

8.1.2 The Program in Practice

An analysis of this approach to regulation has been undertaken by Richard Liroff of the Conservation Foundation. His evaluation indicates the following:

1. Cost savings for risk creators have been substantial, in the neighbourhood of C$800 million plus C$10 million per year in operating costs.[162] However, the drive to save money has resulted in firms foregoing previously identified control opportunities. The scheme permits avoidance of costs which are necessary to increase the effectiveness of prevention. Contrary to the economists' arguments, permit trading has been an obstacle to achievement of the objectives of the *Clean Air Act*.

2. The claim that leaving it to the market will lower monitoring and enforcement costs has not been supported; the costs associated with controlled trading are increased rather than decreased. When flexibility increases and cases are decided on an ad hoc basis, monitoring costs increase due to the great variety of operating and maintenance strategies that are being employed. When strategies are not familiar, regulators need new information to understand and track their impact.

3. When monitoring and enforcement tasks increase in difficulty and complexity, the incidence of noncompliance and paper compliance goes up. With reliance on the market mechanism, cheap and simple ways of avoiding higher costs are exhausted. Willingness to employ costly approaches becomes dependent on effective and consistently employed enforcement mechanisms. Thus, more time, money, manpower and increased intrusiveness are required. Permits increase flexibility and cost effectiveness, but without improved monitoring and enforcement preventive and remedial action will decline. Ultimately, policy objectives concerning harm control are undermined rather than promoted.

4. While a few bubbles increased the rate of pollution abatement above that which would have been achieved through compliance with conventional regulatory requirements, in many other cases emission reductions have not been the result of permit trade. Instead, emission reductions often represent companies' past responses to conventional control requirements, where they had controlled more than required without the alleged incentive provided by trading.

5. Trading of air pollution permits has inspired virtually no technological innovation. Instead, it often leads to devious ways to cut costs. Netting allows companies to avoid installing available technology, leading to less improvement than possible when major modifications in plants occur. It slows attainment of air quality standards by reducing the pressure to improve performance. Most 'innovation' involves a mere rearrangement of conventional technologies.

6. The participation of environmental and public interest groups has been vitally important in promoting disapproval of bubbles whose environmental benefits have been misrepresented by applicants. Participation has also encouraged more thorough review and assessment of proposed rules governing emissions.[163]

   The role of citizens and environmental groups has been to challenge the assumptions which permit variances to be granted. As well, the moral outrage expressed by citizens has required regulators to adopt strategies which will not generate litigation from citizens opposing undercontrol.

7. Because of their high profile, bubbles draw an especially intense level of criticism.

8. Inadequate attention has been devoted to measuring and publicizing the risks to air quality associated with permit trading. The harm resulting to the ecosystem in areas where reduction of emissions has been less than would otherwise be required has not been addressed.

Two bubbles that proved effective were established by a 3M tape coating facility in Bristol, Pennsylvania, a company with a good environmental record, and by DuPont at a large chemical plant in Deepwater, New Jersey. The bubble at the 3M plant did produce technological innovation, namely a solventless coater system, and did save energy and money. However, a two-year extension of the compliance deadline was required in an area where a significant threat to the ozone layer exists.

DuPont proposed to reduce emissions from some of the largest sources by 99.9 per cent while controlling its smaller sources less stringently than otherwise required. ... The reductions at the three largest sources are being accomplished by using their emissions as an auxiliary fuel in furnaces. Early compliance at relatively low cost was achieved because few new controls had to be planned and installed. Some, although not all, of the plants required retrofitting. This bubble was permitted in a nonattainment area.[164]

8.1.3 A Question of Assumptions: Economics Versus Ecology

Effectiveness has been defined by EPA primarily in terms of saving money which would otherwise be spent on introducing control technologies at a greater number of sources. Damage to the ecosystem as a result of failure to control or of delays in meeting deadlines has not been assessed systematically; the approach taken has been homocentric rather than ecocentric. Instead of improving the effectiveness of harm control, the emphasis has been on reducing its cost. Innovation has been minimal because firms have sought to do as little as possible as cheaply as possible: their

emphasis has been on modifying existing designs for control systems rather than on developing control systems based on new assumptions or employing new methodologies.

Regulatory activity has centred on compliance monitoring, with relatively little effects monitoring. The focus on net emissions ignores distributional consequences unless they outrage citizens. Those opposing trades need a very high degree of expertise, which some communities are better able than others to mobilize. Inadequate attention has been given to the inappropriateness of the assumption that the composition of emissions is irrelevant, and none to mitigating harm when there is a deficit between forecasted and actual benefits. In the absence of adequate effects monitoring, conflict and litigation have been considerable since the interests of the risk creators have been given more attention than those of the risk bearers. This approach to regulation thus ignores both interdependencies and emergent properties.

In addition, regulatory program design has devoted too little attention to the need to develop procedures and forms of auditing which will reduce the probability of outrage. The use of deadlines for the achievement of specified performance standards is designed to increase flexibility by permitting expenditures on harm reduction to be distributed over a longer time frame. However, if compliance by the deadline is promised, forgiving noncompliance becomes more likely. Little consideration is given to the consequences for air quality in the face of pressure to extend deadlines indefinitely.

A major problem in auditing proposed trades in emissions involves forecasting accurately the consequences of a single trade. Because of the multiplicity of contingencies to be addressed, and because of the complexity of feedback relationships which may affect the outcome, the probability of an accurate forecast is slim. Unintended harm may result, and its mitigation needs to be addressed.

Should the liability for such harm rest jointly with the buyer and seller of the permits? In designing tradeable permit systems, economists have ignored the need to address this critical question. Their premise has been that neither the buyer nor the seller is liable for the resulting harm, liability being an externality, a cost to be borne by others. Yet, if tradeable permits are to be employed, due diligence on the part of the seller is required and can probably be best achieved by creating joint liability both for unintended increases in harm and for the consequences of failing to achieve prescribed harm reduction. Buyer and seller need both be subject to the kind of liability which the Superfund has created for the clean up of toxic wastes.

8.1.4 Summary

Many areas of the United States failed to achieve the air quality standards which the *Clean Air Act* required to be met by December 31, 1987, but they did not suffer the

loss of federal funding which was to have resulted. Major changes needed if cities like Los Angeles and Denver are to achieve compliance continue to be deferred. The designs of changes required to achieve compliance have been developed, but implementation has not occurred because the threatened sanctions have not been employed. In other words, the incentives attached to effective enforcement have been nullified.

Trading of permits without requiring a preaudit - that is turning them into a commodity, thus allowing the privatization of new property - loses sight of the fact that permits are designed to be instruments for the promotion of systematic harm reduction. If harm reduction is to be ensured, there must be valid evidence that the exchange of the permit improves air quality. In the absence of such evidence audits, despite their intrusiveness, will be demanded especially since investment in complex or expensive control technologies will only occur when the consequences of noncompliance are deemed calamitous.

8.2 The Australian Approach to the Conditional Approval Process

8.2.1 Franchise Agreements: Using Legislation to Define Permit Terms

Australia has a history of franchise agreements involving the authorization by government of activities associated with risk. The first franchise agreement negotiated by Queensland was the *Thiess Peabody Coal Pty. Ltd. Agreement Act*, approved by the Queensland Parliament in December 1962. When the project was delayed, the legislation did not take effect and was superceded by the 1965 Peabody Mitsui Agreement. The Central Queensland Coal Associates Agreement was a franchise agreement negotiated between the state of Queensland and the Utah Development Company (with headquarters in San Francisco and now known as BHP Utah International). The agreement was concluded in January 1969, and provided the company with the right to build four giant export coal mines.

An Act of Parliament authorized the Premier to make for and on behalf of Queensland an agreement with Utah Development Company and Mitsubishi Development Pty. Ltd. An 80-page agreement, set out as a schedule of the Act with the force of law, entrenched the commercial agreement between the government and the companies. Once the agreement had been made and promulgated, any variation of its terms would require agreement between the Premier and the companies and subsequent endorsement by parliamentary resolution.

The Act dealt with special coal mining leases, stipulated how much coal the companies could produce, the royalties they would pay, the capital funds they would

provide for railway construction, as well as the freight rates they would pay. It enabled the companies call upon the state's assistance in procuring land and access at the mine site and port, and gave them legal backing for prospecting and obtaining special coal mining leases. It obliged the state to build a railway and establish a port authority where the companies requested.[165]

8.2.1.1 Prospecting and Mineral Rights

The companies in turn were required to obtain sales contracts for the quantities of coal contemplated in the Agreement, and to effect binding commitments with financial institutions to obtain security deposit of some Aus$36 million for the cost of building the railway and purchasing rolling stock. Those funds would be used by the state for the railway and repaid in six monthly installments, with interest over twelve and one-half years as equivalent amounts were recouped by way of freight charges. Moreover, they were required to provide evidence of compliance with these requirements to the Treasurer and the Minister for Transport. The Agreement also stipulated that there could be no transfer of benefit outside the two companies without government approval.

The companies could prospect over franchise lands for a period of five years, in gradually declining areas ranging from 1333 square miles in the first and 1070 in the second year to 810 in the third, 550 in the fourth and 290 in the fifth year. Rental fees were set between $6 and $8 per square mile. The companies were required to provide the Minister with full details of the results of geological investigations.[166]

Once prospecting was concluded, the companies were permitted up to four licences. The total area that could be held under leases was 175 square miles, and no lease could be greater than one mile wide and 30 miles long. The amount of coal which could be produced and exported was set at 150 million tons of coking coal, and an additional 150 million tons as long as additional production did not exceed 30 per cent of recoverable reserves. Special coal mining leases would be effective until 2010, with two renewal periods of 21 years. They were designed to provide flexible and multipurpose instruments that could be used to cover infrastructure requirements, including housing and railways as well as all facets of open cut mining.

8.2.1.2 Transportation and Freight Rates

Within two years of the first shipment, the companies were to install all machinery needed to produce and dispatch for transportation not less than four million tons of coking coal annually. The companies were required to provide total capital funds for the new 142 mile railway to a port selected by them. Queensland would own, operate and

build the railway which would be capable of transporting at least five million tons of coal per year.

The freight rate sought to cover amortization of capital, operating costs, and provide a profit. Rates declined with increased tonnage and were subject to escalation for movements in costs. Factors to be taken into account in setting rates were changes in wage rates, material and supply costs, profitability and economics of railway operation. The companies were required to bear the risk for 'force majeure.'

The royalty rate was set at 5 cents per ton for 42 years; it was repudiated unilaterally by the Queensland Government in 1974, in response to the energy crisis.

8.2.1.3 Public Reaction to the Act

Galligan states that "the Bill was rushed through parliament with the customary contempt of Queensland governments for parliamentary review." Labour was given only a week to study the legislation. The Labour Party lacked the expertise needed to assess the terms of the agreement, and debate was minimal. Emphasis was placed on royalty rates being too low, and concern was expressed about the absence of local equity participation.

In an editorial the *Courier-Mail* argued: "Surely it would be simpler and more understandable to the public, to have an established and satisfactory rate of royalty, and to negotiate freight rates from there. Ironically, that had also been Utah's position: the company preferred to pay a higher royalty that would be publically defensible and for which it would get public credit."[167]

8.2.1.4 Evaluating the Method

The terms of the agreement placed more emphasis on company effort than company performance. In negotiating the agreement "the state officials were concerned lest Utah be given too much coal to the detriment of its own potential needs in the future."[168] The company had to deal with both the Department of Mines and the Treasury. Unlike other franchise agreements (*Indenture Ratification Act*, Roxby Downs/South Australia, 1982, an Act dealing with uranium development, and the *Greenvale Agreement Act*, Queensland, 1970-71), no attention was devoted to environmental matters.

The franchise agreement provides a technique for the legally binding custom design of permit conditions. It has the advantage of a comprehensive agreement, covering arrangements with various government entities. However, the effectiveness of

the conditions is affected by uncertainty about the pattern of future development. The less negotiators are able to forecast the future accurately, the more emphasis will be placed on specifying the principles to apply in subsequent negotiations rather than on the parties' specific present obligations. Under such circumstances, contracts lose an important source of strength, that is, the ability to design prospectively an effective remedy for nonperformance. A remedy which will reduce the probability that renegotiation of terms will generate moral outrage and dispute will be needed.

The franchising process limits public input into authorization. Due to the complexity of the matter, it is difficult for parliamentary debate to provide an effective mechanism for reviewing the terms negotiated between the government and a company. In order to assess the validity of the assumptions underlying the forecasts on which the agreement is based, considerable expertise is required and that expertise is often not available to opposition parties. As well, as in the above noted case, very little advance notice to enable the mobilization of such expertise may be provided.

In the absence of adequate expertise, attention will centre around the adequacy of the return to the public sector or matters of concern to the Treasury, not on the harms which nontraditional large-scale development may create. The design matters which the Department of Mines must address are given too little attention in the auditing process. Inadequate provision is made for effects monitoring and subsequent redesign, since the goal is to speed development and to specify how the required infrastructure would be provided and financed. There is little attention to the methodology employed. While moral outrage can be expressed in parliament, redesign of the terms of the agreement are difficult if not impossible to achieve there given the inadequacy of the information to which the public and the legislature have access.

Franchise agreements are contracts without prospective remedies, which are enshrined in legislation. With the terms of the contract being public and subject to parliamentary debate, it is expected that both parties out of concern for their reputation will voluntarily comply with the agreement. As well, when the terms of the agreement are renegotiated, it is expected that the position of both parties will be responsive to public sentiment.

8.2.2 Export Permits: Delegating Standards to Overseas Governments

8.2.2.1 Achieving Compliance with Foreign Requirements

Australians also use regulation by permit in areas involving export trading. The Export Inspection Service was established by the 1983 *Export Control Act,* under authority of the Department of Primary Industry and Energy of Australia, in order to

ensure that meat and other primary produce prepared for export markets meet the requirements set down by overseas governments. Two examples will be discussed: Halal or religious certification of meat for islamic countries, and the prevention of delisting by the United States Department of Agriculture (USDA) inspection service. These programs employ self-certification, promotion and government monitoring of industry output to limit rejection rates. The program represents a form of self-monitoring.

Exporting nations and the industries concerned both seek compliance from producers for export in an effort to protect the reputation of the industry and to ensure continuing access to foreign markets. As a result, both industry and government engage in compliance monitoring. The incentive to do so voluntarily is considerable whenever the market concerned is a sizeable one.

In such cases, Australian producers must meet foreign definitions of due diligence if they wish to export their goods into those specific markets. Commercial pressures for compliance are created by having importing countries or company requirements included in the order specifications.[169] The argument here is that sovereign nations are entitled to determine the conditions for market entry and that companies and nations seeking to secure access to the market are obliged to meet them. Since the failure of a small number of firms to do so can endanger access for all other firms, self-regulation is an investment in securing and expanding market share. Under such circumstances, members of the industry are interdependent. If any one member fails to prevent harm, the detriment resulting will be borne collectively.

The danger of course is that import control can become a nontariff barrier (NTB), a way of restricting foreign competitors. However, Australian regulators believe that neither USDA nor Halal certification has been used in this manner.

8.2.2.2 Halal Certification

Halal certification, in which compliance is gained through administrative law, began January 1, 1984. The industry pays one-half of the cost of inspection, the Commonwealth the other. This distribution reflects the fact that both the individual producer and the industry as a whole can benefit or be harmed if due diligence is not forthcoming. The Australian Government Supervised Muslim Slaughter System (AGSMS) is administered by the Australian Quarantine and Inspection Service (AQIS):

> Any establishment registered by AQIS to export meat may become eligible to prepare and export Halal meat under AGSMS, on the basis of a programme approved by AQIS covering slaughter, handling, identification and separation of Halal product from non-Halal. Emphasis is on maintaining integrity of product throughout the entire export process.[170]

AQIS registers and certifies Muslim slaughtermen, supervises Halal slaughter, identification and handling of Halal products and, jointly with the appropriate Australian Islamic bodies, issues Halal certification. The Australian Meat and Livestock Corporation, a marketing authority, is involved in the registration of Muslim slaughtermen, the issue of identification cards and the promotion of Australian Halal meat in overseas markets.

Corrigan (1988) states that once a product loses Halal status, i.e., through contact with non-Halal product, animals or persons, it cannot be regained. An AQIS approved Halal program may be cancelled and Halal certification denied to an establishment for noncompliance with the terms of program approval; it may be reinstated subject to adequate safeguards. In the extreme cases AQIS may cancel export registration, preventing the establishment from exporting to any market.

Decisions of the Export Inspection Service (EIS) to limit access of domestic producers to foreign markets can be appealed to the central office in Canberra and to the Administrative Appeals Tribunal. The maximum monetary noncompliance penalty per violation is Aus$100,000 or five years in jail. However, the service tends not to use prosecution and monetary penalties except for major offences, given the availability of privileges which can be limited or withdrawn. For example, the EIS can stop production, withdraw export permits, confiscate, destroy, or refuse to ship product, withdraw Halal status for a period of time, and delist plants for certain export markets. People who pack meat for export have a licence which can be withdrawn; those who export meat have a licence from the Australian Meat and Livestock Corporation (AMLC) which can be withdrawn as well. The agency's annual report identifies revoked licences.

To gain an understanding of what constitutes due diligence, especially in light of differences between, say, Iranian and Malaysian standards, there must be constant communication and consultation between the inspection service, industry and the Islamic bodies on the requirements and the running of the AGSMS program.[171]

Corrigan (1988) reports that, since its inception, there have been few difficulties with the AGSMS system. In the beginning, problems related to the lack of understanding of the religious significance of Halal on the part of non-Muslims: "AGSMS has been very effective and recent review of the system recommended only several administrative changes with AMLC and Islamic Bodies assuming more responsibility for commercial and religious aspects respectively." He notes that the system has been accepted by virtually every Islamic country in the world and that Halal certification is regarded as having high integrity. Corrigan also contends that most overseas regulatory requirements can be accommodated without too much difficulty.

If an Export Inspection Service is to do an effective job of ensuring the quality of products licensed for export, regulators must be extremely knowledgeable not only about

foreign regulations, but about their enforcement procedures as well. Considerable contact with foreign regulators and mutual adjustment among foreign and domestic regulators is required. The inspection service needs data on rejection rates for those goods issued export permits; reducing the rejection rate is a very specific regulatory objective.

8.2.2.3 The Impact of Foreign Standards

The importance of constant communication to acquire and refine an understanding of what is needed and why has been necessary as well in relation to gaining access for Australian producers to American markets. The United States Department of Agriculture has people based in Australia permanently. It also sends review teams who can either call unexpectedly on a country, or on premises in that country to check the company's activities - in this case, on how the Export Inspection Service, or a given enterprise, is performing.[172]

In Australia, there has been considerable outrage on the part of consumers due to the fact that meat for export to the United States is expected to meet higher standards than that for domestic consumption. There is a very real fear that producers denied access to export markets because of the inadequacies of their internal control systems will be permitted to sell inferior goods domestically, rather than being forced out of the marketplace entirely. Quality control is promoted by industry advisory groups in response to the concerns generated by the standard differential.[173] For example, the Meat Industry Advisory Committee which comprises certain sectors of the industry, the Australian Meat and Livestock Corporation and the CSIRO (the Commonwealth's industrial research organization) as well as the Department, meets quarterly. All but the small operators, a small minority, are represented in industry associations.

8.2.2.4 Evaluating the Method

The study of export permits that employ foreign standards emphasizes the importance of privileges as an incentive for compliance and self-monitoring. When the failure of one's competitor to control quality is widely known, it can undermine the reputation of one's own product. Under such circumstances, industry self-regulation is likely to occur. The effectiveness of regulation and the willingness to engage in effective compliance monitoring are likely to increase with the size of the privileges to be lost.

Government regulation, as well, is most likely to be effective when there are a large number and variety of privileges which can be withdrawn or to which access can be limited. The major obstacle to using permits to achieve compliance is that when privileges are few and relatively undifferentiated, and the consequences of withdrawal for

that firm or its competitors are minimal, they are unlikely to be withdrawn. As a result, this potentially powerful incentive becomes of little use in generating compliance. However, when the withdrawal of privilege can have extensive spillover effects and a regulatory agency has little bargaining power with foreign regulators, careful compliance and effects monitoring are both likely to result.[174]

8.2.3 Consumer Complaints and Consumer Protection

Above, we have noted the Australian concern that regulators have much more clout and thus greater ability to command compliance in relation to regulated export markets than within the domestic market. It is thus more difficult to protect domestic consumers of domestic products, than it is to protect domestic consumers of foreign products and foreign consumers of domestic products. This contradiction is apparent in several kinds of regulation. As an example, regulation of pharmaceuticals in Australia has been built upon the authority to inspect and impose conditions on imports. Since virtually all of the raw materials are imported and then formulated in Australia, import restrictions provide important clout which the Health Department can mobilize.

By contrast, compliance of unscrupulous traders in the domestic market is more difficult to ensure and a great deal of regulatory effort is devoted to designing remedies to assuage the moral outrage of consumers, that is, "cooling out the mark."[175] Politicians are more concerned about dissipating outrage then they are about restructuring the domestic marketplace so that corporate internal control systems are better able to assure a high level of quality control.[176] Because of the emphasis on dissipating outrage, mediation between individual traders and consumers commands the greatest share of regulatory resources, not only in Australia but in the United States as well, and alternative dispute resolution has been most extensively developed in the area of consumer relations.

8.2.3.1 Mediation: The Ad Hoc Approach to Problem Solving

While mediation can be effective in resolving individual disputes (neighbourhood justice systems have burgeoned as a result[177]), this approach to regulation is very resource intensive. By focusing on a case-by-case approach, too little attention is devoted to identifying and addressing the patterning in noncompliance. Also, there is always the risk that publicity resulting from the findings of investigation units creates a higher profile for consumer agencies in the community, which in turn tends to generate complaints. In other words, when patterning is identified by the investigation unit, complaints increase, further straining available resources.

Consumer departments tend to assume that most traders "are honest and fair and try to do the right thing..."[178] Their emphasis is on teaching consumers to fix their own problems and to treat the agency as a resource to be used only in the last resort, when an impasse has been encountered. Given that view, it is not surprising that mediation is viewed as the methodology of choice.

However, resolving individual cases, ameliorating the worst harms, does not restructure relations between traders and consumers in ways that reduce the incidence of problems. Mediation fails to prevent or mitigate harm more effectively. Education programs are expected to play that role, to give people the ammunition and the means of protecting themselves.

Emphasis within mediation programs is placed on achieving the monetary compensation victims want so that their outrage will decline. The process does not dwell upon the source of the outrage. Mediation provides a sense of fairness through a full airing of the case, and assumes that the matter "could be settled with a single act, payment of money rather than by complex behavioural changes among disputants."[179] Finding a solution acceptable to the victim thus does not reduce the probability that others will be victimized. Instead, the major strength of mediation is its usefulness in identifying that course of action which is both acceptable to the victim and not unacceptable to the risk creator. The dispute is treated as a private matter between the parties; spillover effects are assumed to be minimal.

8.2.3.2 Investigation of Consumer Complaints: Putting the Onus on Industries

Grabosky and Braithwaite's interviews enable us to contrast the case-by-case approach with that of the investigation and enforcement units in consumer affairs departments, who are faced with legislation which is not comprehensive. Over time, legislation has been introduced in response to the latest outrage, such as pyramid selling, trading coupons, misleading advertising. "It's a stopgap approach and there are lots of loopholes. ... [At the same time,] there are other types of conduct that legislation hasn't kept pace with..."[180] As a result, the legal authority needed to solve problems is often inadequate and the harms which should receive attention are not clearly defined.

Regulators rely heavily on referrals from legal aid groups, consumer credit, legal service, or "jobwatch" groups to identify the latest areas in need of remedial action. These groups provide the information which those mediating conflicts are too busy to consider. Having identified problem areas, information from departments with similar mandates is investigated. The emphasis is on documenting and publicizing unethical conduct within specific industries, and identifying for the public those industries which need to develop more effective internal control systems. Industry action to restore public

confidence and dissipate outrage is most likely to be sought, but legal authority to quell the most recent source of outrage may also be granted.

One of the major functions of investigations is to convince members of an industry that there are benefits to be realized from structuring and confining the discretion of their members. By contrast, mediation fails to generate an awareness of the importance of industry responsiveness to public concerns. Mediation may, however, reduce the demand for a legislative response to the latest sources of outrage.

8.2.3.3 Licensing as a Means to Ensure Fair Trade Practices

Licensing may be promoted as a technique for restoring public confidence. It creates a degree of external control designed to increase accountability. Positive licensing, an industry response to public concern, is a form of self-regulation with potentially anti-competitive effects. Thus such schemes in Australia must be authorized by the Trade Practices Commission.

Negative licensing, used to prevent particularly unscrupulous traders from operating in an industry, is employed by the British Fair Trading Commission (UK-X-a-2) and was employed by the South Australian Commissioner of Consumer Affairs (Au-X-a-7). In Britain, assurances[181] are sought that misleading advertising, for example, will not be employed again. Broken assurances can result in court orders or loss of licences. Assurances, however, seek to prevent future harm rather than mitigating the effects of past harm; they represent agreements to desist from unacceptable behaviours. By contrast, the United States Federal Trade Commission employs consent orders to provide managerial remedies and to order such changes as an improved system of information handling (US-X-a-8). The emphasis here is on mitigating harm and preventing harm by structural redesign.

8.2.3.4 Summary

The study of Australian consumer protection practices identifies some of the problems associated with case-by-case analysis and an approach to regulatory issues which emphasizes compensating victims. Such an approach may resolve a dispute without generating the public information required for more effectively preventing recurrence of illegal behaviour. Swamping consumer agencies with complaints as well reduces their ability to identify patterns of noncompliance.

As a first step in diagnosing problems, the regulatory agency needs to address the design of effective harm prevention and mitigation strategies. Mediation of consumer

complaints is a tool for resolving individual complaints but its use is costly and contributes relatively little to achievement of regulatory objectives.

8.2.4 Public Authorization of Variances : The Australian Trade Practices Commission

8.2.4.1 Anti-Competitive Conduct versus Public Benefit

The Australian Trade Practices Commission has the power to authorize conduct which might otherwise breach the *Trade Practices Act*. An authorization grants the risk creator immunity from court action on the grounds that any anti-competitive effect the conduct may have is outweighed by the public benefits it produces. Authorizations are prohibited in situations leading to abuse of market power, resale price maintenance, price discrimination or price fixing.

"In deciding whether or not to grant authorization the Commission must weigh the anti-competitive effect of a particular conduct against the public benefits accruing directly from it."[182] To obtain assistance in making this evaluation, the Commission invites submissions, in support or opposition, from interested parties. These are broadly defined; the Commission sends the proposal for a variance to competitors, consumer groups and all others believed to have a direct interest. All are invited to comment on the request for authorization, giving competitors and risk bearers an opportunity to comment and to criticize the assumptions, forecasts and recommendations. A file hearing process is employed on the justification advanced for granting an exception to the regulations.

When proposing to grant or deny authorization, the Commission first issues a draft decision to which interested parties may submit comments. As well, any interested party has the right to request a predecision conference with the Commission before a final decision is made. If a conference is requested, all interested parties are notified and invited to attend. An effort is made to negotiate terms responsive to the concerns presented. Anyone other than interested parties, the press or academics for example, are specifically excluded from attending the conference because of the distortion of positions which might result from their presence. Application for a review of the Commission's final decision may be made to the Trade Practices Tribunal.

The *Trade Practices Commission Bulletin* states that "subject to claims for confidentiality, applications for authorization ... as well as submissions from interested parties, and the Commission's decision and reasons are placed on a register open to public inspection." This enables the press and academics access to the applications and to the responses made by those with a direct interest.

8.2.4 The Absence of Monitoring

The Commission stresses the difference between public and private benefits by supposedly applying five criteria, all of them economic:

- lower prices;
- increased security of supply;
- net increase in number and/or quality of jobs;
- lower tariffs and bounties; and
- a more favourable balance of payment position.

Application has, however, been inconsistent. In addition, as Penguilly has noted: "it is notorious that the efficiencies and economies that have been claimed in advance, sometimes extravagantly ..., to flow from projected mergers often have not become a reality." In particular, it is difficult to determine which "of the claimed cost savings are likely to be passed on to consumers."[183] Although authorizations can be rescinded if projected benefits are not realized, the Commission does not monitor projected benefits to see if they are realized. In the absence of effects monitoring, unpredicted detriments which may need mitigation are not identified. Instead, reauthorization is most often initiated only after a complaint - usually from a competitor or consumer organization - has been lodged.

When the nature of the public benefits to be derived are uncertain, there is a need for proactive monitoring and enforcement systems, for public access to the data gathered and for assessments of the data. Yet, "[t]he Commission is biased against review of decisions. It has no criteria. ... One of the reasons it's difficult to get the Commission to set conditions/require undertakings is that Commissioners disagree about how legal and detailed the conditions should be."[184]

The authorization process currently emphasizes defining benefits, not ensuring their realization. If more attention were focused on defining the principles governing the design of prospective and retrospective remedies for harm, benefits might be more effectively ensured. While the Commission lacks the resources required for effective oversight, authorizations could include the requirement that beneficiaries of authorizations must report at least annually on the degree to which alleged public benefits have been realized. Such information should be public and subject to challenge. If penalties for misrepresentation and failure to comply were substantial, such self-reporting might prove more effective than present procedures.

8.2.4.3 The Effects of Public Involvement

Authorization becomes an important incentive to private firms when their actions may be in violation of the *Act*, because most financial institutions require it as a condition for providing financing. While this requirement increases the number of applications the Commission receives, many of them unnecessary, it does provide the Commission with information on the practices of large numbers of risk creators which may contravene the *Act*.

The public nature of the procedure for granting variances has a number of advantages. The first is that the Commission lacks the operational knowledge which is often necessary for effectively assessing the grounds on which a variance is requested. Comments on the initial proposal and on the draft decision from those with such knowledge serve to uncover inaccuracies. This resembles the role workers play in evaluating designs proposed by safety engineers under the CPP program.

The conferences involving interested parties frequently generate intense friction among conflicting interests, but they provide an important opportunity to challenge the assertions of others. Since the role of the Commissioner is to improve the quality of the draft decision as a result of the views exchanged, not to mediate disputes among interests, conferences can actually exacerbate conflicts and increase the probability of an appeal. The decision of the Commission to reject a forcefully presented view can increase outrage at the decision rendered. Despite this possibility, conferences are a relatively cost-efficient way of hearing contending interests. The process permits sides to tell their story and to "cross-examine" others without lawyers. Those who have participated in conferences are more likely to monitor effects which, given the Commission's financial inability to do so, provides some ability to identify harm resulting from the variance.

8.2.4.4 Evaluation of the Approach

The major difficulty with variances, as Penguilly has eloquently noted, arises because the Commission deals with authorizations only on a case-by-case basis. No attention is devoted to identifying patterns that need to be systematically addressed and, as Baar has noted (1987b), tiering of regulation does not result.

The discussion of variance procedures in Chapter 6 indicates that variances have not proved an effective means of generating public benefits, such as increased investment in innovative techniques for reducing harm. That chapter stressed the importance of effects monitoring if variances are to be accorded legitimacy; if the benefits of a variance are private rather than public, then some competitors are advantaged at the expense of others. It can be assumed that competitors monitor each other's behaviour carefully, yet

that assumption is not likely to be valid given the restricted access to information and an inward looking emphasis on rate of return and profits rather than an outward looking concern with market share. This suggests that normally competitors do not act as an effective source of external control. However, mobilization of competitors by sending them requests for variances may overcome these obstacles and prove beneficial.

8.2.5 The Commissioner of Inquiry System in Britain and Australia

8.2.5.1 Procedure

Commissions of inquiry first developed in the United Kingdom. The *Public Health Act* of 1848 gave the Minister the power to appoint superintending inspectors to hold public inquiries.[185] Such expert inspectors, not lawyers, undertook fact finding and assessment of arguments in the local community and made nonbinding recommendations to the Minister. Hydroelectric design in the United Kingdom was revolutionized by such inquiries.

Commissions of inquiry enable members of the public to hear and take part in the public debate. Commissions are entitled to disregard normal rules of evidence, thus rendering admissible matters of opinion and information from any source, but can require the attendance of witnesses and the production of documents.[186]

The United Kingdom and New South Wales use commissioners to inquire into controversial planning and environmental issues. A commission of inquiry may be initiated by the Minister or can be demanded by the public. In Australia, one or two commissioners are appointed, and three weeks notice must be given to the public before hearings commence. Commissions are widely advertised and held as close to the centre of controversy as is possible. In Australia, decisions can be appealed to the Land and Environment Court. In the United Kingdom, orders are subject to judicial review. There, inquiries are now used in the last resort, when conflicts between developers and communities cannot be otherwise resolved. Ministers are prohibited from acting before the report of the commissioner has been received.

Commissioners rarely allow cross-examination. However, one expert witness can cross-examine another. The emphasis is on dissipating outrage by providing a full and adequate hearing. Hearings have four parts:

- applications or comments;
- receipt of primary submissions;
- questions and answers; and
- final statements.

The first stage includes applications for confidentiality. Commissioners define confidential material narrowly. As much information as possible is made public. Questions and answers must be written and all answers are circulated to all participants. There is no transcript, but a complete record is obtained by documents provided by participants, including written questions and responses. The commissioner must restate each witness's position to make sure it has been accurately understood. Commissioners do not have research staff.

8.2.5.2 Findings and Recommendations

The commissioner briefs the Minister on issues and implications, findings and recommendations. Emphasis is placed on defining conditions which permit the development of consent. Commissioners do not usually recommend outright rejection of projects. In heritage cases in Australia, for example, the central question considered is whether a site can be conserved without undue financial hardship; a great deal of emphasis is placed on ensuring that conditions are feasible.

Conditions of consent are custom designed. For example, a contract between the State Pollution Control Commission and a proponent will spell out the conditions the latter must meet as a condition for a licence. The need for future licences and the possibility of a prohibition order encourage compliance with the conditions of consent.

Commissions of inquiry are effective in narrowing issues in dispute. It is assumed that the community, not the Minister, is the client. The commissioner's task is to formulate advice by drawing on community resources, on the expertise of community members. Advice provided to the Minister must reflect every shred of opinion and provide all the facts. No one's views are discredited through disregard. The process thus demonstrates respect for community members by promoting procedural fairness. A report may be delayed, with the consent of the parties, pending an overall review of a policy.

Recommendations must address the worst case scenarios of opponents, and must suggest commitments from the proponent which could provide compensation and mitigation for potential harm. The legal consent instrument includes a parcel of conditions, some of which the proponent will not like. It is designed to provide opponents with greater certainty that there will be adequate protection against their worst case scenarios. A summary of submissions used to be provided in New South Wales, but that has been replaced by a summary of the issues. The simplified format was adopted to facilitate comprehensibility for readers at a time when cases are becoming increasingly complex. People must understand what is being proposed and why no matter how complex the issue.

Four times in ten years the New South Wales government has proceeded without an environmental impact assessment. The monorail in Sydney is an example. According to Alan Gilpin, Commissioner of Inquiry for the New South Wales Department of Conservation, in six years, the Minister has rejected only one or two reports submitted by Commissioners, sometimes for political reasons, and translated 99 per cent of the reports into action. In the United Kingdom and New South Wales, implementation of recommendations is at the discretion of the Minister. By contrast, in Western Australia, the Minister is not permitted to act in a way seen as inconsistent with the findings of the inquiry.

It is possible to design conditions so as to meet most objections. In three of Gilpin's cases, applicants withdrew because they could not answer questions such as: "If you take sand for industrial purposes out of the bay what will happen to the beaches?" Gilpin states that "I insist that all undertakings are provided in writing."[187]

8.2.5.3 Ensuring Compliance

When conditions focus on ensuring rehabilitation, Australian applicants must post a bond large enough to provide rehabilitation in the event that a firm goes bankrupt. Furthermore, the process employed emphasizes conditional approval. The incentive to meet the conditions established in full derives from an understanding that the next time a firm applies for a consent, its past performance will be assessed. A mine, for example, must demonstrate when seeking a licence that it has met conditions in the past. This encourages compliance. "Being seen as reliable is essential for a firm's future business prospects."[188]

If there is a breach of licence conditions, the responsible department will prosecute with increased penalties. Failure to rehabilitate a site results in losing one's bond. A full range of remedies exists. For example, in New South Wales, the State Pollution Control Commission is the body with responsibility for implementing the recommendations approved by the Minister; it grants licences and prosecutes for breaches. Its tools include licence revocation, leading to inability to operate. As well, the Minister has the power to close down a business. Public embarassment also is a powerful disincentive.

8.2.5.4 Evaluation of the Approach

There is a real danger in this process that the framework developed by Commissioners may reflect the prevailing wisdom in the planning profession, without adequate willingness to question the assumptions on which that wisdom is based. When this occurs, as it has for example in Victoria, the legitimacy of the process is undermined

and public outrage may be increased rather than dissipated. It is not enough to be able to tell one's story; there must be evidence that one's views have been heard accurately, treated seriously and that the resulting design is responsive to those concerns. Any sense of distortion by applying an inappropriate framework will reduce the effectiveness of the Commissioner of Inquiry system in dissipating outrage.

It is important to contrast the Commissioner of Inquiry system with the use of alternative dispute resolution in the United States. In both cases, an expert is employed as a neutral third party. In the case of the Commissioner, the neutral is a civil servant; in the American model, he is drawn from the private sector. In the British and Australian cases the neutral must have the full confidence of the Minister. In the American case, while EPA approves neutrals and recognizes their expertise, confidence in their judgment requires an arm's length relationship between the agency and the mediator. Such a relationship is deemed essential to the appearance of fairness.

In each case, the parties tell their stories and listen to others in an effort to provide a better understanding of the sources of outrage and of the priorities that determine acceptable and unacceptable solutions. But in one case the process is private, while in the other it is public. More specifically, the evidence and the findings of fact are made public in Britain and Australia but not in the United States, with a narrow definition of confidentiality being applied in the former while a very broad definition is employed in the United States. These differences alter the process fundamentally.

In the United States, advice is given to the parties on the action they should take. The opinion is advisory. In Britain and Australia, advice is given to the Minister on the methodologies that the private sector should be required to follow to ensure protection of the public interests, and on the conditions which the Minister should attach to a permit. Usually the Minister accepts the advice tendered and the obligations become legally binding. Under the American system, the advice given is accepted less frequently.

However, under both systems implementation may prove incomplete. Under the British and Australian system, obligations are publicly defined, prospective remedies have been more clearly addressed, and incentives spelled out. A somewhat greater degree of effects monitoring has been established than found in the United States. Under the American system, obligations need not be publicly defined, prospective remedies are less likely and obligations are set out in private contracts rather than as conditions attached to permits.

The greater openness of the British and Australian approach has much to commend itself for. Most importantly, it ensures broad access to information about risk, the nature of obligations required to reduce that risk and whether those obligations have been fulfilled and have been effective.

8.2.6 Concluding Remarks on the Delegation of Regulatory Control

This chapter focused on different approaches to delegating aspects of regulatory authority to risk creators and their governing bodies, risk bearers, and private sector neutrals. It also addressed the sharing of the authority to define due diligence, and methods to ensure that the delegated authority has been employed to reduce harm effectively. The chapter's findings are summarized below:

8.2.6.1 Summary of the Approaches

Halal certification assigns the government of the exporting nation responsibility for ensuring that its exporters conform to the design prescribed by the importer. In order for the exporter to do so, the importer and/or those within the exporting nation with a thorough understanding of the regulations and the reasons behind them assume the interpretor/translator and teacher roles. Once a thorough knowledge has been acquired, the government of the exporting nation and the producers' organization take on the teacher and advisor roles in relation to producers. As well, the government of the exporting nation assesses competency and evaluates performance. The importing nation also evaluates performance, providing feedback to the exporting nation on how their producers can improve.

The Commissioner of Inquiry system assigns the regulator responsibility for facilitating the intepretation/translation process by interpreting proposed legal requirements to those who will be affected, and identifying the outrage such requirements are likely to create. The commissioner is responsible for identifying why the requirements are deemed unacceptable and for proposing redesign for the purpose of reducing outrage. Thereby, the legitimacy of the legal requirements is increased, and a custom designed definition of due diligence emerges.

An additional role often assumed by the Commissioner is that of designer of prospective remedies for harm which might result. Defining the risk creator as liable for mitigating harm, ensuring that the liability will be met and identifying prospectively the courses of action to be taken should harm prove excessive are often critical steps to dissipating outrage. Commissioners of Inquiry serve as an antidote to overcontrol; they provide the risk creator with more freedom than might otherwise be available.

The Trade Practices Commission authorization process, like the Commissioner of Inquiry system, is a form of protection against the potential for overcontrol. The commission assumes responsibility for informing those affected about proposals to reduce the legal requirements imposed on a given risk creator, allegedly for the public benefit. Those affected serve as advisors to the commission, providing their operational knowledge to those who must evaluate whether the proposals should be authorized and

whether conditions should be imposed on the risk creator. Thus, risk bearers are in a position to provide advice on design of custom designed definitions of due diligence. This procedure may avoid outrage by increasing the appropriateness of the definition of due diligence, but if the advice given is not heeded, outrage may become substantial.

The franchise agreement assigns regulator and risk creator dual responsibility for defining an appropriate set of obligations to govern their relations. However, because of the very extensive spillover effects, Parliament is authorized to evaluate the terms which have been agreed upon and authorize their implementation. In addition, Parliament must evaluate and authorize amendments. This strategy is designed to limit the potential for perceived collaboration and to reduce outrage after the agreement has been concluded.

Emission permit trading (the "bubble" system) emphasizes the front end of the regulatory process while ignoring the back end. Regulators define minimal performance standards and evaluate the degree to which a given risk creator has exceeded the minimum; they also authorize use of credits. The regulator here assumes part of the evaluator role. Effects are not audited and the regulator fails to assume any responsibility for designing remedies as needed. Design of the methodology for achieving minimal standards is left to the risk creator. Risk bearers can participate in developing the minimal definition of performance, but are excluded from the rest of the process. As a result, whenever undercontrol is identified, litigation arises.

8.2.6.2 Determining the Participants in an Open Regulatory System

From these examples, we begin to understand the role of those affected in the regulatory process and the reasons for encouraging their involvement:

1. If legal requirements are to be defined so that neither overcontrol nor undercontrol results, then both risk creators and risk bearers must have an opportunity to give advice on how those requirements should be defined.

2. If advice is given but not heeded, then the requirements will be outrageous in the eyes of some or all risk creators or risk bearers.

3. Involving risk bearers will only reduce conflict and increase legitimacy if the requirements accurately reflect the concerns of all affected. To ensure that their concerns have been accurately reflected, it is essential to subject draft recommendations to the broadest possible scrutiny so that errors the regulators have made in design can be identified before requirements become legally binding.

4. Those affected have a kind of expertise regulators often lack, which enables them teach regulators what changes are needed if compliance is to be achieved.

5. If the views of risk creators are not addressed, legal requirements may become unreasonable - infeasible in the eyes of those on whom they are being imposed. Overcontrol will define the requests of regulators as excessive and risk creators will resist, making compliance difficult if not impossible to achieve.

6. If the views of risk bearers are afforded too little attention, then adequate protection against harm will not be provided and outrage will result. Political pressure for tougher enforcement and tougher legal requirements will result and litigation will be employed to contest undercontrol.

A group which is often overlooked when designing legal requirements are those who will be responsible for their enforcement. The British have recognized the need to consult with the union representing regulators, but frequently their expertise is not recognized adequately and their advice is disregarded.

7. If the views of those responsible for enforcement are ignored, then the legal requirements will be unenforceable and there will be a great disparity between the law on the books and the law in action. If the law in action is too divergent from the law on the books, regulators will be unable to mobilize legal control when needed. It is for that reason that a redefinition of the role of crown law officers is proposed. Emphasis must be placed primarily on their role as teachers and advisors and only secondarily on their role as evaluators.

Many teachers and advisors are needed if regulatory effectiveness is to be achieved. Each brings the skills needed to target regulation more effectively. Regulatory effectiveness also requires evaluators, each of whom can contribute to effective redesign and to requiring performance which will not outrage anyone. The function of evaluators is to increase responsiveness to those from whom feedback is necessary if both overcontrol and undercontrol are to be minimized. Without such feedback, as the "bubble" case study illustrates, the need for remedies will be disregarded and harm will fester and grow, thus undermining regulatory objectives.

8.2.6.3 Conclusion

What have we learned about when regulatory responsibilities can and cannot be delegated to the private sector and how they should be delegated? The major dangers of delegation are:

1. that responsiveness to interdependence will be reduced;

2. that harm will be unrecognized and be left unattended;

3. that opportunities to reduce harm will not be seized (as was the case with the bubble); and

4. that negative feedback will not be gathered or acted upon.

Effective regulation requires tight coupling among the players so that they are constantly giving advice and seeing that advice accepted. Legal control is needed only when advice is ignored or discredited.

If the quantum of legal control used to gain compliance is to be reduced, then the parties affected must dialogue with one another and act on the basis of advice tendered. They will only do so if substantial incentives, such as access to large markets, can be realized. There must be an effective auditing system - one which systematically assesses effects as well as compliance. Data from the audits must be widely available and used for two purposes: to promote more effective prevention and mitigation by informing the redesign process and determining whether delegated authority has been used responsibly and to maximize the potential for reducing harm. Only when the auditing system is responsive is delegation justifiable.

9.0 WALKING THE TIGHTROPE: BALANCING REGULATORY OBJECTIVES AND PUBLIC REACTION

9.1 Changing the Approach: Behaviour Ordering Instead of Imposed Rules

9.1.1 Regulatory Legitimacy and Moral Outrage

The case studies analyzed in chapters 7 and 8 focus on the variety of instruments used to delegate regulatory responsibility to private parties who are subject to regulatory audit, and on differing approaches to ensuring regulatory legitimacy. Ensuring legitimacy as well as the appearance of legitimacy in regulatory activity reduces the incidence of moral outrage.

As the case studies have shown, the moral outrage of any interested party can generate a problem in maintaining the regulatory balance of control. When the public experience outrage, regulators are urged to use legislative enforcement measures and adversarial relations with private firms develop as a direct result. When private firms voice outrage, on the other hand, regulators are urged to reduce monitoring and other intrusive activities. A situation of undercontrol results, which the public perceives negatively; subsequently, their relations with regulators may become antagonistic. Regulatory legitimacy in the eyes of the public requires that risk bearers define behaviour patterns and harm reduction as adequate, and that moral outrage be prevented or dissipated.

9.1.2 Behaviour Ordering Defined

Stenning and Shearing (1988) use the term "behaviour ordering" to refer to patterning of behaviour which is designed to achieve order and integrity. When behaviour ordering is the objective, regulatory emphasis is on monitoring the effects of the existing system and on reformulating the way ordering is achieved, with a view to making it increasingly effective in achieving regulatory aims. There is little concern with the methodology used to achieve those effects, as long as the methodology chosen does not disrupt the existing ordering of relations or contravene existing moral values.

If a given outcome has been achieved by contravening the existing morality (allegedly or in fact), moral outrage results. It is produced by the absence of procedural and substantive fairness. Outrage demands that rewards so gained be removed and that further contravention be prevented.

A move from design standards toward performance standards substitutes behaviour ordering for mere compliance with rules; this in turn permits a redefinition of the roles of the public and private sector. Responsibility for diagnosing the causes of inadequate order can be transferred out of the hands of government under a number of circumstances. Nongovernmental experts can be assigned authority for designing and implementing strategies to increase the effectiveness of the existing ordering of behaviour. In the regulatory setting, the public sector acquires responsibility for auditing performance and commanding changes designed to improve the adequacy of the ordering, to reduce the quantum of harm, and to dissipate and prevent moral outrage.

Each of these tasks, commonly assigned to government, can be more effectively performed if governmental efforts are supplemented by those of risk bearers and industry, the two populations most likely to be harmed by inadequate behaviour ordering and harm control. These groups, also the most likely to experience moral outrage, have a direct interest in the ordering deemed adequate by those authorizing performance standards and auditing behaviour. However, that responsibility cannot be delegated to these parties alone, since while each has an interest in the outcome, they collectively are unable to represent adequately the entire public interest. The public sector's responsibility is to represent that interest accurately, without generating moral outrage from parties representing competing private interests.

9.2 Recognizing Interdependence: Multiparty Participation in the Regulatory Process

Moral outrage can be controlled either by imposing the priorities and assumptions of a minister or government on the public, and then preventing access to information on effects, or by permitting the free flow of information (particularly negative feedback) and redesigning of priorities and assumptions so that they reflect more closely the diversity of perspectives within society. If the former course of action is adopted, obviously there is no need for public participation. However, if the latter option is adopted, giving advice is not enough; the advice must also be taken.

The notion of interdependence has been most clearly recognized in the regulation of occupational health and safety, where the need to delegate authority jointly to workers and employers has been recognized. Yet, in most occupational health and safety programs, the emphasis has been placed on increasing the willingness of workers to consent to management decisions rather than on joint decisionmaking. This direction is most apparent if we compare California's Cooperative Compliance Program, the Voluntary Protection Program established in the United States by OSHA, the British Health and Safety Executive's response to the Robens philosophy, and the Australian approach to mine safety. Of these programs, the CCP most closely approximates joint decisionmaking. OSHA's Voluntary Protection Program requires the active involvement of workers in program implementation, but program design and authorization are

managerial responsibilities. The British Health and Safety Executive has limited its efforts to creating worker consent, while the Australian approach assigns responsibility to the registered mine manager, facilitates union auditing of the mine manager's actions, and provides unions with a tool they can use in response to undercontrol.

One of the major problems in developing a system for equal participation has been the lack of knowledgeable participants. The California Cooperative Compliance Program created a joint labour management committee which was assigned responsibility for monitoring compliance, evaluating suggestions for rule redesign, and promoting and lobbying for those forms of redesign which labour and management representatives agreed would improve regulatory effectiveness. The Voluntary Protection Program is a national program which was built upon the California experience. However, following the collapse of a newly constructed hotel in Kansas City, which had been built under the authority of a joint labour management safety committee, and the issues of liability that accident posed, the program de-emphasized joint decisionmaking and focused instead on worker involvement in program implementation. There was a conscious decision not to move toward joint and several liability.[189]

Creating structures permitting worker input into implementation decisions has become the central concern under the OSHA program. Attention is focused on giving advice rather than on developing a consensus on what is to be done and how. However, the program recognizes that if workers are to give advice, they must have a thorough knowledge of the existing rules and how they are administered.

By comparison, the British approach fails to assure that workers have the training necessary to acquire such knowledge. It is assumed, falsely, that workers and employers are knowledgeable about regulations and regulatory processes - about their obligations and their rights. In the absence of such knowledge, employers do only what has been commanded by government regulators, and employees lack the knowledge needed to generate outrage about excessive risk. Only severe injuries elicit outrage and call for redesign of existing procedures.

The Australians overcome the problem of employer and worker ignorance by assigning responsibility for safety to a registered mine manager who is required to have a certificate of competency. Such a certificate can only be acquired by an individual who is knowledgeable about the regulations and the methodologies for ensuring safety. Unions, with the financial assistance of the state governments, employ members with that knowledge, who can advise the membership when there is too little control of hazards by management and on the strategies they can pursue in order to ensure adequate protection from harm. Such union members become important teachers and advisors.

9.3 Defusing Moral Outrage: A Regulatory Priority

9.3.1 The Advantage of Openness and Accountability

In the Australian system, moral outrage is expressed by the membership to the union expert who designs strategies for achieving more effective ordering of behaviour. The information needed to generate - and channel, or diffuse - moral outrage is provided by way of access to the record book, in which all violations identified by mine regulators and engineers are recorded and the remedial action taken to rectify the violation is specified. Rapid response of inspectors to union complaints and the availability of prohibition orders, which can stop work until an inspector arrives, also dissipate moral outrage. Furthermore, there is a requirement that any orders believed to compromise safety are required to be in writing. This measure is designed to enable subordinates to resist inappropriate commands from superiors. The threat posed by the potential loss of a certificate of competency, should the holder of that certificate fail to exercise due diligence, provides another mechanism for discouraging decisions which trade off safety in order to achieve other objectives.

While the emphasis on accountable individual responsibility found in the Australian approach is more consistent with prevailing legal principles, the joint responsibility which existed under the California program is most conducive to the free flow of negative feedback so essential when the objective is to find better ways of improving safety. As well, employing joint decisionmaking is more likely to produce converging interests, while using the union as a check on the registered mine manager's exercise of his authority is more likely to emphasize divergences in priorities and assumptions.

9.3.2 Mechanisms to Control Outrage: Absence, Failures and Successes

The international programs studied differ considerably in the extent to which mechanisms are in place to contain moral outrage. The California Cooperative Compliance approach appears to be the most effective for disseminating knowledge of regulations and the reasons behind them, for promoting ongoing refinement of rules and fostering rapid adoption of change. The Australian approach defines the locus of responsibility and identifies who is liable if harm proves excessive. However, middle managers, the officers most responsible for effective implementation of rules, acquire too little liability and are not held responsible for the effectiveness of behaviour ordering. Moral outrage may result.

The British approach assigns employers responsibilities of which many are unaware; regulators rather than managers are responsible for promotion of safety. If the regulator fails to assume this responsibility or to hold the employer accountable for noncompliance, few tools are available to alleviate undercontrol. Again, moral outrage

can develop. The British have not developed mechanisms other than prosecution for dissipating such outrage should it emerge.

One reason for the British shortcoming is that British regulatory assumptions most closely approximate those of economists, whose emphasis is on ensuring that all standards are technically and economically feasible; minimizing the costs borne by risk creators is their primary objective. The danger of such an approach is most vividly illustrated by an American example, however, namely the "bubble" system and the evolution of permits which can be traded among air polluters. Economist proposals for tradeable permits disregard interdependence, especially the consequences of harm permitted to be caused to other individuals and the ecosystem. Their attention is focused on minimizing costs and maximizing the incentives available to those who invest in preventing future harm. As a result, many opportunities for reducing the quantum of harm and redressing inequities in its distribution are not seized. Such circumstances, of course, are likely to increase moral outrage, a variable to which economists are insensitive.

The economists' insensitivity has been such that they have not understood adequately public resistance to effluent taxes and higher tax rates for unsafe employers. Such taxes may raise the costs borne by risk creators, but fail to increase the benefits realized by risk bearers, since they merely enrich the general treasury and are not used for harm prevention and mitigation. Insensitivity to moral outrage further means that too little attention is devoted to restoring a symbolic order that reflects the existing public morality. Yet if such order is not restored, if rules defining fair and unfair behaviour are not developed and enforced, any techniques which increase the feasibility of compliance will be actively resisted. The EPA recognizes that problem and has involved environmental groups extensively in the design of standards and their implementation. Standards have been negotiated through mediation processes.

Lawyers and economists have both devoted too little attention to the importance of restoring symbolic order and to enforcement techniques required to maintain it. The decline in use of prosecution in England, particularly in the area of pure food legislation, occurred because judges were unwilling to convict. When conviction did occur, minimal fines were levied and collection was not assured.[190] Forgiving noncompliance, employing insignificant sanctions and failing to enforce payment of fines are all acts which further undermine order, creating moral outrage and demand for actions which will right the moral imbalance. Regulatory overcontrol is likely to result as the pendulum swings back.

There are several means available to restore the necessary symbolic order that preempts situations of over and undercontrol. Fines which are imposed with certainty and speed can be used, but may fail to address the moral outrage deriving from undercontrol. Only by systematically commanding and ensuring **rapid and effective implementation of actions** designed to prevent future and mitigate past harm can moral

outrage be reduced. Rees found that rapid implementation of suggestions designed to reduce harm was a prerequisite for regenerating worker willingness to participate in improving safety. Rapid implementation of suggestions becomes an essential incentive which is often ignored. Another strategy is to **prevent the inevitable decline in the effectiveness of employee participation**. The lack of employee participation is a form of entropy which is infrequently monitored and counterbalanced.

Reducing the moral outrage experienced by risk bearers can often reduce the degree of conflict among risk creators, risk bearers and regulators. **Alternative dispute resolution** is particularly effective in calming those injured by noncompliance. Although alternative dispute resolution reduces moral outrage, this technique often fails to remedy the harm causing the outrage. Financial compensation is frequently substituted for preventive and remedial practices. While such compensation reduces the outrage experienced by a single victim, no action is taken which would reduce the probability that others will be victimized and become outraged. This problem is most apparent in the use of mediation to resolve disputes between specific traders and consumers. As consumer affairs departments in Australia have recognized, the process fails to address the structural problems creating recurring victimization. In fact, since the terms of the settlement are often secret, dissemination of information to other buyers may be impeded. Negative feedback is privately channelled rather than being broadly publicized. As a result, alternative dispute resolution has little effect on behaviour ordering.

9.3.3 Balancing Costs and Incentives

Attempts to diminish moral outrage are attempts to reorder behaviour in the service of preventing and reducing harm. To reorder behaviour, it is necessary to process classes of complaints so that attention is centred on the reasons patterns recur. Consumer affairs departments in Australia have recognized this need, although they still assign a higher priority to dissipating moral outrage than to restructuring patterns of social relationships.[191] The need to manage interdependence effectively is seen as less important than the need to dissipate moral outrage,[192] and dissipating outrage becomes an end in itself rather than a means to an end.

Reordering behaviour requires that any allocation of incentives reflect the patterning of noncompliance rather than discrete instances of noncompliance. As Richard Brown (1988) noted, court rules of evidence do not allow the introduction of data on previous behaviour patterns when assessing guilt; such data can only be introduced at sentencing, that is when addressing the question of sanctions. The EPA, for example, thus recognized that its ability to negotiate reordering of the behaviour of large petroleum companies, whose agents engaged in fuel switching, increases when sanctions in individual cases are aggregated into a single payment due. Under such circumstances, EPA has been able to convince companies such as Exxon to invest in

improving their internal control system.[193] This example points out that investment in improving internal control systems only occurs when the return on investment is substantial and clearly defined.

The principle of locating a pattern was further developed by Rees (1986a), who reports that the two construction companies he studied, which participated in the California Compliance Program, first invested in safety professionals in 1970 in response to the large and accelerating penalties which the *Occupational Health and Safety Act* provided and to the possibility of jail sentences for corporate executives whose firms failed to comply. Given the potentially calamitous cost of noncompliance, hiring people with expertise in diagnosing safety problems and designing feasible responses was viewed as an investment. When the penalties provided proved less severe and certain than expected, disinvestment would have occurred if the savings on workers' compensation realized as a result of positive ratings had been insubstantial. Safety professionals carefully documented the rate of return on investment for management.

Mobil Chemical decided to participate in the voluntary protection program despite the costs of compliance and the intrusiveness of OSHA's auditing procedures. The company viewed such expenditures as investments in increasing regulatory flexibility, namely by decreasing OSHA's dependence on inappropriate and unfeasible design standards. The costs in this case were carefully documented, but the advantages which could be gained by reducing overcontrol were considered so great that they were redefined as investments.

These examples illustrate one of the major problems associated with cost/benefit analyses as contrasted with futuring undertaken by regulators. The benefits which transform an expenditure into an investment in the eyes of risk bearers, as opposed to risk creators, are frequently not monetary. Benefits may involve an increase rather than a decrease in intrusiveness if reasonable regulation replaces the demand for compliance with unreasonable standards.[194] Demanding compliance with unreasonable standards creates greater moral outrage among risk creators than does increased intensity of government supervision of the effectiveness of a firm's internal control system. If only the assumptions of economists define how cost/benefit analyses are undertaken, their validity will be reduced as too little attention will be given to the value attached to eliminating rules creating an unfair order.[195]

Stenning and Shearing (1988) argue that when the attention of regulators is focused on behaviour ordering, punishment is not seen as an appropriate strategy for creating the ability and the will to adopt a new patterning of relations. Their argument is that persuasion rather than regulation becomes the appropriate governing instrument. However, the evidence is not persuasive. Baldwin (1987) found that when risk creators lack the knowledge of regulations and the expertise needed to diagnose why they are out of compliance and how it might be achieved, promotion is the most effective way of

changing behaviour. Command and control are also very useful in achieving compliance under such circumstances.

Effectiveness does not depend on whether persuasion or regulation are used, but on how successful the regulator has been in targeting instructions to a specific population. The need for targeting was revealed as well in Rees' discussion of why labour representatives on joint safety committees are more effective than safety professionals in gaining worker support. The former possess operational knowledge which safety engineers lack, and are better able to achieve legitimacy in the eyes of the workers since their suggestions for change will be sensitive to the differences in the ways each trade orders its behaviour. Lack of familiarity with such ordering will increase the probability that some rules will be deemed unreasonable and produce outrage. However, as discussed in the case studies, persuasion alone does not seem to be a sufficient technique for achieving systematic harm control.

9.3.4 Dynamic Regulation

Stenning and Shearing's (1988) work emphasizes the role rules play in defining what is fair and unfair; their emphasis is on the role rules play in checking discretion. But rules also structure and confine discretion - limiting jurisdiction and defining the way behaviour should be ordered. Rules become unreasonable when the ordering of behaviour required does not complement the way it is ordered within the population one is seeking to influence. Despite its costliness, dynamic regulation is needed to permit complementarity between the way a given population orders its behaviours and the methodologies recommended to that population for preventing and mitigating harm more effectively. As Latin notes, however, dynamic regulation is more likely to be perceived as being unfair - advantaging some at the expense of others. Its potential for generating moral outrage can never be ignored when one is calculating whether command and control or dynamic regulation is more appropriate.

Under many circumstances, command and control regulation becomes impracticable because of the consequences for behaviour ordering. When disorder results, design rules must be shed and replaced. For example: a common set of design rules cannot be applied to both mines and factories, because all regulation of mining must recognize that within a mine, any supervisor can directly supervise only two or at most three people simultaneously. Mechanized factories permit a wide span of control, but within a mine it is of necessity very narrow. Given these differences, internal control systems, if they are to be effective, must be structured very differently. Industry-specific design standards, often used in the United Kingdom, would still not order behaviour in the mining industry appropriately because of the differences resulting from location and professionalization of employees.

9.4 The Pros and Cons of Delegating Responsibility

9.4.1 Defining the Objectives of Delegation

In regulatory situations with a number of variables, regulatory responsibilities can be shared rather than controlled by the regulator alone. The rationale for delegating some regulatory responsibility to private parties is that such parties will be better able than regulators to ensure complementarity. Similarly, private parties are better able to select a methodology which will prevent or dissipate moral outrage. Auditing by regulators of the methodology selected is designed to ensure that opportunities to improve harm reduction are not lost because of too much emphasis on cost and feasibility. Audits would prevent the moral outrage and inadequacy of harm reduction, for example, of the trade-offs permitted under the "bubble" system.

When the objective is both to prevent moral outrage and ensure an adequate rate of harm reduction, regulators, risk bearers and competitors must all be involved in evaluating both proposed methodologies and performance. The task of the regulator is to ensure an adequate rate of harm reduction, while the role of risk bearers and competitors is to identify ways in which the methodology proposed could generate moral outrage. By canvassing the worst case scenarios of industry and risk bearers, effective prevention can be commanded. By identifying aspects of unacceptable performance, strategies for dissipating the outrage it might generate can be negotiated. However, the task of the regulator is to ensure that preventing and dissipating moral outrage does not become more important than reducing harm; both objectives must be balanced.

9.4.2 The Balance of Regulatory Objectives in a Variety of Systems

9.4.2.1 The Commissioner of Inquiry System

The Commissioner of Inquiry system employed in both Britain and Australia is an effective and inexpensive way of canvassing everyone's worst case scenarios. It is inexpensive because legal counsel are not involved, and participants assume responsibility for providing a systematic record of the issues raised. It is effective because it permits a wide variety of interests to tell their story. Because of wide publicity, there is no need for the regulators to identify those with an interest and seek their participation. Yet, once again, the danger with this system is that preventing moral outrage may become more important than preventing harm, especially in the case of the Minister who has the authority to act on the recommendations of the Commissioner, and who is bound by political processes. Imbalance is particularly likely when effects monitoring by regulators and evaluation of performance by risk creators and competitors are underdeveloped.

9.4.2.2 The Trade Practices Commission

The Australian Trade Practices Commission's authorization process takes a somewhat different approprach to preventing moral outrage. It seeks advice from only those risk bearers and competitors which the commission believes might have an interest. The commission staff identify interested parties and seek their advice before a draft report is developed, and again after it is drafted. Accordingly, both those with first-hand knowledge about existing behaviour ordering and those seeking to alter it give advice and evaluate changes proposed before a final report is drafted. The procedure is designed to permit those most likely to be outraged to express their views so that preventive action can be designed; it permits regulators to focus their attention on ensuring that harm will be adequately reduced. However, the process is based on forecasts advanced by the parties which may prove inaccurate. The results of effects monitoring, if it occurs, are not placed on the public register. Instead, risk bearers and industry are assigned the responsibility for monitoring effects and demanding that authorizations granted be rescinded. Under such circumstances, too little attention is likely to be devoted to performance and to evaluation of the adequacy of the methodologies.

9.4.2.3 Alternative Dispute Resolution

Alternative dispute resolution and in particular mediation has been used in the United States, especially with regard to environmental matters, to reduce moral outrage. As with trade practices authorization, those brought to the table are identified by the regulators. Many interests affected may thus not be included since highly organized interests with extensive expertise are more likely to be involved than lay parties. Mediation allows those at the table to tell their story and to gain a sense of efficacy from participation in defining due diligence. Yet, once again decisions are based on forecasts the accuracy of which is not assessed, and adequate prospective remedies are unlikely.

Furthermore, the terms negotiated may not be made public; thus, only those at the table have the information needed to monitor performance and define inadequacy. Because mediation occurs in private and the regulator merely reviews the outcome, access to information presented is restricted to participants and the reasons for the outcome may be poorly defined for regulators unless they participate in the mediation process. Thus, regulators may lack knowledge needed to prevent moral outrage effectively and to evaluate the extent to which the outcome prevents and mitigates harm.

Joint decisionmaking involving risk creators with the authority to authorize harm reduction strategies and specific risk bearers who can define those assumptions and elements of current design which are unacceptable has the potential to speed implementation of acceptable action. A great deal of emphasis has been placed on mini-trials as techniques for resolving complex issues. Yet, the most important feature of

mini-trials is that the chief decisionmakers must be in attendance and prepared to negotiate settlements. There is a commitment not only to listen but to act. The emphasis is on gaining the consent of risk creators to action to reduce harm which outrages risk bearers. Once again, alternative dispute resolution is used to dissipate moral outrage but the procedure may not alter the internal control system of the risk creator so that harm is more effectively and consistently reduced.

It is interesting to note that our case studies provide several strategies for canvassing forecasts of potential sources of moral outrage, but only one example of a procedure for mitigating harm. The *American Compensation and Liability Act*, the Superfund legislation, seeks to reduce the quantum of harm. Success is measured in terms of reduction in the number of "national priority sites," that is those sites where preventive action proved inadequate. Under the *Act*, issues of joint liability must be resolved so that clean-up of hazardous waste sites, funded in large part by those who created the waste, can proceed. Joint action by multiple parties is required to design a clean-up strategy for each specific site. Mediation has been used to facilitate allocation among the parties of costs for feasibility studies and the actual clean-up. Hearings addressing proposed settlement agreements permit both risk bearers and creators to monitor and propose design changes, which must then be authorized by the Environmental Protection Agency. Hearings make it possible to criticize the assumptions underlying a given design, to suggest improvements, and to identify better ways to prevent and mitigate harm.

Unfortunately, hearings, too, can be rendered ineffective in regulatory procedure. If they become proforma, they will lose their potential to promote redesign so that moral outrage can be dissipated. The potential that risk creators or risk bearers will litigate to question the legitimacy of either the design or the process through which it was adopted increases. The potential to diffuse conflict through public participation can be eroded rapidly. Only when participation goes beyond providing an opportunity to give advice and when it actually alters the design authorized and the ease and speed of its implementation, is it likely to reduce conflict and increase the legitimacy of the decision reached.

In all three countries, the front end of the regulatory process has been developed more extensively than the back end: the emphasis is more on preventing and dissipating moral outrage than on regulatory effectiveness. Effects monitoring, public access to the results and public participation in designing remedial action are all required if delegation of regulatory responsibility to private interests is to be legitimate.

9.4.2.4 Accountable Self-Regulation

Accountable self-regulation must audit both the effects forecast and performance. The current emphasis on auditing forecasts rather than performance is not enough. The

backend of the regulatory process must be assigned much more attention than it has been given in the United States, Britain or Australia. Because accountable self-regulation relies more heavily on performance rather than design standards, effects monitoring becomes more important than compliance monitoring.

The role of the regulator changes significantly when private groups are delegated an increasing role in defining the harm reduction methodologies which are most appropriate. The regulator's responsibilities for diagnosing the harm created by specific risk creators and proposing strategies for harm reduction become private responsibilities. Instead, the regulator assesses the behaviour ordering proposed and asks whether outrage and harm will be adequately reduced. His second role is to audit performance to determine whether the effects of the behaviour ordering adopted were different then forecast and to require adjustments in the ordering to better reduce both harm and outrage. Our case studies indicate that inadequate auditing of performance has been a major obstacle to more effective delegation of regulatory responsibility.

Auditing the performance of a corporation's internal control system is very intrusive, however, which is why it has been underdeveloped. The rationale for adopting accountable self-regulation is not that it will reduce the intrusiveness of government, but that it has the potential to effectively reduce both outrage and harm. Accountable self-regulation has the potential to reduce regulatory conflict and increase regulatory effectiveness. However, to do so, both outrage and harm must receive equivalent regulatory attention.

9.4.3 Choosing the Appropriate Regulatory Instrument for Delegation

The need to devote adequate attention to both the control of harm and of moral outrage must be reflected in the design of instruments used to delegate regulatory authority. Design of performance standards contained in regulations and contracts constitute such instruments. Our case studies identify several other instruments which can be used as well; franchise agreements, agreements of voluntary compliance, conditions of consent attached to permits or licences, settlements for remedial action in the form of a judicial consent decree, and informal agreements between regulators and risk creators.

9.4.3.1 Franchise Agreements

In assessing the relative effectiveness of instruments for delegating regulatory authority it is important to determine how each contributes to preventing moral outrage, ensuring harm reduction and enabling the effective use of legal control. The franchise agreement, employed to regulate resource development in Australia, is a contract between the state and the risk creator which is introduced as a bill in the legislature

where it is debated and approved. Amendments to the contract require legislative approval. This instrument is designed to permit extensive participation of risk bearers in defining the performance standards which the state will use in evaluating whether the risk creator's use of public property is responsible.

As a result of the risk creator's involvement in defining the terms, he is unlikely to find those terms morally offensive. But how will they be defined by the risk bearers? In theory, debate in the legislature provides all with the opportunity to oppose any provision of the agreement. In practice, of course, the ability to be heard will depend on whether there is a committee system, the length of time allocated to assessing the legislation, and the distribution of power within the legislature. When there is a minority government or a powerful, well-organized opposition, the potential for amendments increases. Under other circumstances, the hearing is more likely to be proforma, merely an opportunity to give advice which will then be ignored.

The effectiveness of a franchise agreement in dissipating outrage will depend on whether the advice given by risk creators and competitors is taken or ignored. In the Queensland case discussed above, little opportunity for public participation was provided because there was a majority government, and opposition parties were given too little time to study the terms of the agreement and lacked the expertise to assess the terms critically.

9.4.3.2 Judicial Consent Decrees

Final settlements in the form of judicial consent decrees will dissipate outrage if community officials, citizens and the media have received the information needed to understand a proposal to clean a site, if their advice has not only been sought but taken into account in the design of the settlement, and if monitoring in which the public has confidence has been adopted to ensure that harm is being effectively reduced. Hearings on the proposed settlement agreement play an important role in ensuring that the design takes risk bearer concerns seriously.

9.4.3.3 Consultation Exemption

Considerable concern has centred around the ability of small risk creators to comply with costly regulations. Their difficulties arise because they frequently lack knowledge of their obligations and of available methodologies for limiting harm. Due to limited managerial and financial resources, they lack the ability to choose among competing methodologies, to design and redesign harm reduction strategies and to implement programs which meet design standards. The American Consultation Exemption Program provides a consultant who can define what should be done, but cannot provide either the means or the will needed to ensure implementation in full of the consultant's recommendations. In the case of the Consultation Exemption Program,

the consultant is only available if the company already has the will to implement the recommendations.

9.4.3.4 Subsidizing Harm Prevention

What happens when the risk creator lacks the means to implement the consultant's recommendations? A variety of regulatory programs exempt small businesses, those with fewer than 10 employees, permitting them to create harm without an obligation to improve either prevention or mitigation. The problem with this approach is similar to the problem created by the "bubble" - it imposes socially unacceptable levels of risk on employees, neighbours or customers. Costs are transferred from the risk creator to the risk bearer; often the risk bearers affected are those least able to tolerate the risk.

It seems preferable in such circumstances for the public sector to bear the costs of prevention and mitigation since if they do not, the harm will fester and grow. If governments provide such subsidies, rather than permitting the risk creators to go out of business, they should not be hidden; governments should be clearly accountable for the subsidies provided.

Government subsidies are not the only means available for permitting small high-risk creators to meet their obligations. Pooling resources through trade associations to purchase the expertise collectively, much as the Australian unions provide their members with health and safety expertise, is clearly desirable. Funds raised through licence fees can also be used to subsidize prevention and mitigation costs. Such a scheme would be analogous to existing "uninsured motorists" funds.

The point to be stressed is that too much emphasis on inability to pay and too little on the harm others might bear has created circumstances in which too little attention is given to ensuring that harm is reduced. Failure to mitigate air or water pollution, safety hazards and consumer fraud carries with it considerable societal costs of its own, often far in excess of those of prevention and mitigation of harm.

Sharing responsibility for training, promotion, education, design, monitoring and sanctioning with other countries and with the private sector has been touted as a way to save money. Yet, if there is to be sharing of responsibility, there must be tight coupling and more attention must be devoted to giving advice and providing feedback. Both Australian mine safety and Halal inspection provide examples of this. High coordinating costs have the potential to permit more effective advice giving, but they also mean that savings will be considerably less than expected. With high costs, feedback becomes increasingly important and risk creators are less able to act as though they were self sufficient. Accountable self-regulation and co-regulation are likely to contribute more to improving effectiveness than they are to reducing costs or intrusiveness.

9.5 Joint and Several Liability

A central focus of regulation is the consequences of one party's acts for others. Given that and existing concerns with costs, evidence, the most promising legal concept is that of joint and several liability: it holds the liable parties collectively responsible for all of the mitigation costs unless those parties, by way of negotiation among themselves, can establish that damages are divisible, and how. Under the American Superfund legislation, joint and several liability has proved to a be a powerful incentive particularly when applied to recalcitrant parties. However, the Superfund experience has demonstrated clearly that joint and several liability will only be effective if combined with a much greater emphasis on procedural and substantive fairness. Without such fairness, joint and several liability can generate a great deal of outrage and resistance to implementation.

Joint and several liability is an attractive concept for several reasons:

1. It focuses clearly on the fact that the objective of regulation is to reduce the quantum of harm.

2. It emphasizes the need to measure and monitor the quantum of harm so that the need for mitigation and more effective prevention remains apparent.

3. It settles liability rather than leaving it problematic. This increases the certainty that firms will be required to bear the costs generated by their production processes; such costs will not be treated as externalities.

4. The costs a firm can potentially be required to bear are likely to be calamitous; thus expenditures to improve internal control systems are more likely to be viewed as investments.

5. The quantum of forgivable noncompliance, the enforcement deficit, is likely to decline because less emphasis is placed on intent, and optimistic forecasts will have less effect on the diligence required.

6. Joint and several liability recognizes the long neglected back end of the regulatory process and de-emphasizes forecasting and risk assessment, which are based on the assumption that harm should only be limited when its probability is great enough to justify limits on economic freedom.

7. Joint and several liability promotes joint rather than individual decisionmaking. It recognizes interdependence rather than assuming very loose coupling among societal actors.

By emphasizing joint decisionmaking and co-regulation, the need for mutual adjustment with others - giving advice which is heeded, not commands - assumes more importance. Such an orientation increases the probability of innovation and decreases the likelihood that obsolete rules will persist long after their usefulness has been lost.

The concept is also attractive because of the importance of linking joint and several liability with an increased emphasis on procedural and substantive fairness. For too long achieving efficiency, or more precisely minimizing regulatory costs, has achieved much more attention than increasing fairness. When the issue of overcontrol has been addressed, its costliness has been stressed, not the outrage and conflict it generates. Undercontrol has received too little attention entirely because it is viewed (erroneously) as reducing the costs to be borne. Furthermore, issues of privatization have addressed the costs but not the consequences of public, private or joint funding for substantive and procedural fairness.

Perhaps the most exciting element in the superfund program is the question of determining which costs should be borne by the public and which by the private sector; in fact, the program provides two options: remedial action can be privately designed, implemented and financed but publicly authorized, or it can be publicly designed, implemented and authorized but privately financed.

The very concept of joint and several liability has the potential for being regarded as both procedurally and substantively unfair, unless it is used in conjunction with a complementary set of programs designed to ensure both forms of fairness. Both the civil and the criminal side of regulation must be carried out fairly. Substantive fairness can only be addressed effectively if systematic effects monitoring is employed and if the practice of forgiving noncompliance is carefuly checked. Possible methods include:

* greater use of administrative penalties which help increase consistency and speed in the application of incentives;
* required payment in full of all sanctions assessed;
* reduction in penalties possible only if increasing mitigation efforts are commensurate with the penalty foregone.

On the civil side, fairness requires the following:

* if all liable parties cannot be brought to the table, government should assume their share of the liability. This should encourage government to use every available means to ensure that none are forgiven;
* broad participation is necessary when the adequacy of a mitigation proposal is being assessed.

Joint and several liability has the potential to shift much of the responsibility for designing mitigation strategies, implementing and paying for them from the public sector to the private sector. It can promote privatization objectives while increasing regulatory effectiveness.

10.0 CONCLUSION

10.1 The Two-edged Sword: Regulation as Civil or Criminal Matter?

The main objective of regulation is not to increase compliance with rules, but to dissipate harm through increasingly effective prevention and mitigation. Noncompliance does not occur primarily because the regulated are ill-intended, rather it is the result of too little knowledge of one's obligations, too little fairness, and ineffective auditing of compliance and effects on the part of government.

There are two major reasons for regulatory ineffectiveness. The first is that inadequate attention has been devoted to the civil side of regulation, namely to mitigating harm which has occurred. The second, more broadly recognized, is that the criminal side of regulation has not been handled effectively, in part because the distinction between the civil and the criminal sides are not well understood.

The civil side of regulation, best illustrated by the American Superfund legislation, addresses four sequential questions.

1. Has harm occurred?

This question can only be answered if there is adequate effects monitoring. If effects monitoring indicates that harm has in fact occurred:

2. What designs will permit adequate and feasible mitigation?

Once a design which is defined as both feasible and adequate has been selected:

3. How can implementation in full be ensured?

The last issue is:

4. How are the costs of mitigation to be distributed?

The criminal side of regulation begins by defining due diligence as the minimum amount of prevention against risk to society that is deemed necessary. It then asks:

1. *Has due diligence occurred, or has there been a failure to prevent risk to society?*

Once such a failure has been established, it must be interpreted:

2. *Did it occur because the risk bearer was uninformed or ill-intentioned?*

If lack of information is the problem, the regulator should provide targeted promotion or education - teaching risk creators their obligations, and the methodologies available or required to meet those obligations. If the patterning of behaviour indicates that the risk creator is ill-intentioned, then his failure to prevent risk to society must be consistently sanctioned; the sanctions administered must be accurately linked to both intent and severity of the risk, and their full effect must be ensured. Because of the importance of the patterning of behaviour, effective management information systems should be an integral part of any design of compliance monitoring. Sanctions against socially irresponsible behaviour should be reduced for one reason only: to increase the degree of mitigation achieved.

Effective regulation requires adequate attention to both the civil and criminal sides of regulation although the civil side should be given precedence. At present, we have found that the criminal side has been more prominent. The front end of the process has been developed, while the back end has been ignored. This is particularly unfortunate because noncompliance is not primarily due to ill-intentioned individuals and organizations. To say that does not mean that they are well-intentioned; instead, it may be most accurate to consider risk creators to be amoral calculators.[196] As a result, the criminal law is not the most effective way to provide the legal control to which regulators must have access. Intent is not of critical importance. The civil litigation concept of joint and several liability, discussed in the previous chapter, recognizes the long neglected back end of regulation, while at the same time doing away with the issue of intent.

10.2 Reducing the Load: Regulation by Delegation

Two approaches to shifting responsibility from the public to the private sector have been considered throughout this study: accountable self-regulation, and the creative use of incentives.

Accountable self-regulation delegates authority to propose a definition of due diligence to the private sector, thereby increasing the probability of compliance. Acquiring knowledge of one's obligations, diagnosing inadequate prevention and designing more effective preventive strategies become private rather than public sector responsibilities, as may monitoring and sanctioning. Delegation is made on a conditional basis. However, adequate prevention will only be achieved if compliance and effects monitoring are well developed and fair, and if noncompliance and the need for mitigation are not forgiven. Failure to limit and remove these responsibilities cannot be tolerated without undermining regulatory effectiveness. Accountable self-regulation alters the roles regulators and risk bearers play, but does not necessarily result in less intrusiveness of government into the private sector. Its main advantage is the contribution it makes to feasibility and fairness and thus to "voluntary" compliance.

Self-regulation may be used to supplement co-regulation or to replace government regulation. Advocates of deregulation have centred their attention on replacing government regulation with self-regulation, but there is considerable evidence of the inadequacy of such an approach.

Since most risk creators are amoral calculators, the results are not surprising. Despite the data, there is a reluctance to abandon this approach to cost cutting.[197] The very limited effectiveness of health and safety regulation based on the Robens philosophy provides further evidence of the limitations of substituting self-regulation for government regulation.

A more promising approach recognizes the importance of incentives and sanctions to changing the behaviour of amoral calculators. Joint and several liability provides one such incentive; its effectiveness could, however, be reduced if nonexperience rated insurance were available. The Security Exchange Commission's (SEC) disclosure requirements for publicly held registered companies (US-E-a-21) provide an incentive by publicizing outstanding compliance and mitigation obligations. EPA's civil and delayed noncompliance strategies (US-E-c-6) provide incentives by creating penalties designed to recover any financial benefits realized from delayed compliance.

The point to be made is a very clear one: when considering ways to achieve reduction in the public sector's role in reducing harm, it must be remembered that most risk creators are amoral calculators. Whatever design is adopted must recognize that reality. Instead of viewing self-regulation as a cost-reducing strategy, it should be pursued as an effectiveness-increasing strategy, one which supplements government regulation and permits more effective targeting.

10.3 Increasing Regulatory Effectiveness

The prescription for increasing regulatory effectiveness thus includes a multiplicity of components:

1. the criminal and civil elements of regulation and the reasons for creating it as a hybrid must be clearly defined.

2. Effects monitoring and mitigating harm must receive a much greater emphasis than they have been afforded in the past.

3. In keeping with such an emphasis, joint and several liability together with increased stress on procedural and substantive fairness are needed.

4. To increase fairness, forgivable noncompliance must be more effectively controlled, and sanctions, when used, must be consistently applied and appropriate

given the risk created for society and the pattern of past compliance. Lack of knowledge of obligations should be distinguished from ill-intentioned behaviour and once identified should be promptly and effectively treated and then not tolerated as an excuse.

5. Administrative penalties should be employed to increase consistency and certainty that sanctions will be collected in full and speed of response to noncompliance. Criminal sanctions should not be eliminated, since they define the seriousness society assigns to preventing given forms of risk to its members. Both criminal sanctions and joint and several liability are needed when dealing with the ill intentioned.

6. Penalties for noncompliance should be graduated, escalate rapidly and should be employed in response to past pattern of compliance and the risk created so that risk creators can calculate the savings to be realized from investing in prevention accurately.

7. Self-regulation should be viewed as a technique designed to supplement not replace regulatory control.

8. Variances should not be used to promote innovation; instead incentives and sanctions should be employed.

9. Public participation in the regulatory process is an essential element of increasing fairness. The public has an essential role to play in defining the risks requiring preventive action and in approving minimal standards for prevention. The public as well as the regulators should be responsible for approving the adequacy of mitigation strategies proposed.

10. To perform these roles, the public must have ready access to valid and reliable effects data as a matter of right. Regulatory failure to gather such data cannot be tolerated; regulators must be accountable for their adequacy.

11. If the public are to exercise these responsibilities effectively they must have at their disposal instruments for rapidly curbing undercontrol. Temporary prohibition orders and court ordered restructuring of enforcement and mitigation efforts are needed.

12. The public should also supplement public sector expertise and design capability, provide suggestions about how targeting might be improved, and engage in supplementary private monitoring and private enforcement.

The objective of positive compliance programs is effective reduction of harm at the lowest possible cost. To achieve that objective, there must be a balance of control

between risk creators and risk bearers; concern for cost reduction cannot be permitted to displace commitment to achieving regulatory effectiveness. Cost control is a means to increasing regulatory effectiveness, it should not be treated as an end in itself.

Positive compliance programs are unlikely to significantly reduce regulatory costs or intrusiveness. It is much more realistic to view such programs as having the potential to improve the quality of regulation by reducing the probability of both overcontrol and undercontrol. In the process, positive compliance programs are also likely to contribute significantly to increasing procedural and substantive fairness, thereby reducing the probability of intense outrage and litigious conflict.

11.0 RECOMMENDATIONS

The recommendations contained below address three main themes which have been developed in this report.

1. Achieving positive compliance requires a fundamental change in assumptions underlying federal regulatory design.

2. Redesign of the incentive structure, the inducements and penalties promoting compliance, is needed, as is substantial investment in effects monitoring.

3. Positive compliance requires substantive reform designed to eliminate the traditional regulatory bias in favour of risk creators. Openness, substantive and procedural fairness and improved accountability are needed to increase regulatory responsiveness to the risk bearers' concern with ensuring effective harm reduction.

11.1 Fundamental Changes in Assumptions

Recommendation 1: The primary objectives of federal regulatory legislation should be to prevent future harm and to compensate for and systematically reduce harm generated through past actions.

The objectives proposed emphasize the importance of clearly specifying the "compelling social purpose" of regulation and defining the criteria to be used to evaluate regulatory performance. Emphasizing the harm to be prevented and mitigated will make it easier to undertake effects monitoring, thus increasing regulatory accountability to the Government and those seeking protection from harm.

Recommendation 2: Federal regulatory design should seek to ensure the lowest possible costs of compliance and administration which are consistent with effective prevention and systematic reduction in harm.

Recommendation 3: Politicization will result when the interests of risk creators are assigned greater importance than those of risk bearers. The role of federal regulators is not to minimize the costs and intrusiveness of regulation for business if doing so reduces the effectiveness of harm control. Instead, their role should be to avoid both undercontrol and overcontrol by paying adequate attention to demands to both minimize costs and maximize harm reduction.

Recommendation 4: Federal regulation should promote the use of positive compliance programs by federal regulatory agencies. Such programs are not designed to reduce costs for risk creators; they are designed to improve the effectiveness of

regulation as an instrument for reducing harm and to increase fairness by promoting a balance of control between risk creators and risk bearers.

Positive compliance should not be viewed as a technique for reducing the intrusiveness of governmental action and increasing reliance on market forces; instead, it is a strategy used to promote smarter regulation, to increase the effectiveness of efforts to reduce harm by creating the conditions which will convince risk creators to internalize a greater share of the costs now treated as externalities.

Recommendation 5: Positive compliance programs should:

1. improve public oversight of private action in order to ensure convergence between public and private priorities;

2. increase the respect given to both public and private interests;

3. recognize the diversity of public interests and the inability of government to represent all adequately;

4. recognize the contribution broad public input can make to accurate forecasts of the consequences of contending methodologies; and

5. impose joint responsibility on the part of government and the publics for defining, realizing and refining the "public interest."

Recommendation 6: Enforcement of federal regulation should place less emphasis on deterrence and devote more attention to the need to reduce the quantum and distribution of harm by systematically developing and consistently applying graduated incentives, which will foster voluntary compliance with performance standards that are reasonable in the eyes of both risk creators and risk bearers.

Recommendation 7: When those being regulated are neither governments nor large corporations, the design of compliance and enforcement measures developed by the government should be based on the premise that most lack knowledge of their legal obligations and assign a low priority to complying with them. Noncompliance should be assumed to be the norm. In light of this assumption, when the cost of compliance is low and complex knowledge is not required, regulators should employ promotion. However, when the cost of compliance is high and effective design does require expertise, then considerable investment in educating those being regulated, changing their assumptions and priorities, is likely to be required.

Recommendation 8: Speed, certainty and consistency in the administration of incentives increases the certainty of costs to be borne by risk creators and permits them to assess the savings which can be realized by improving their internal control systems.

Recommendation 9: Administrative penalties are more likely than criminal sanctions to increase the speed, certainty and consistency in application of incentives.

Recommendation 10: Criminal sanctions should be used to deal with demonstrable harm created by failure to take preventive action when risk is high or consequences severe, and to deal with organizations with inadequate compliance histories.

Recommendation 11: When risk is high or the potential consequences severe, prosecutors should be able to seek both civil and criminal sanctions. Criminal sanctions alone do not provide the remedial action needed if prosecution is to contribute in a meaningful way to harm reduction. Restitution, as currently employed, is too narrow a concept since it only refers to financial compensation while ignoring the need to remedy the harm so that it does not fester and grow.

Recommendation 12: When there is a strong moral mandate for controlling a given form of harm and for ensuring full cost internalization, outrage is likely to result if criminal sanctions are not employed consistently to convey to those out of compliance how socially unacceptable their behaviour is. Furthermore, failure to consistently employ penalties which reflect the degree of societal displeasure with noncompliance will undermine the legitimacy of the justice system in the eyes of risk bearers.

Recommendation 13: Federal regulators should devote more attention to:

1. design of regulation so as to increase its effectiveness as a device for preventing harm;

2. reduction of undercontrol and underenforcement, forgiving noncompliance and weak drafting; and

3. improvement in the adequacy of governmental audits to ensure that obligations undertaken are met and the impact of harm is reduced rapidly and consistently.

Recommendation 14: Since positive compliance programs are recommended, more emphasis on monitoring the effects of regulation on harm reduction is necessary. There should be broad access to the results since government, risk bearers and risk creators all need accurate information about the effectiveness of existing regulatory practices. Substantive and procedural fairness are needed to increase the legitimacy of regulatory action, and more emphasis on reducing harm is needed if overcontrol is to be avoided.

Recommendation 15: The legal process should be restructured so that it is more responsive to the need for a balance of control between risk bearers and risk creators

and consistent enforcement of performance standards which are defined as reasonable by both sides.

Recommendation 16: In light of the detrimental effects of delay on subsequent compliance, scheduling and adjournment decisions should be responsive to the needs of risk bearers.

Recommendation 17: Departmental legal counsel need to play a more active role in providing feedback to regulators on how legal control could be used in future to achieve regulatory objectives more effectively. Seconded attorneys need to meet more frequently to discuss with those assigned to other regulatory agencies ways of improving prosecutorial effectiveness. Such attorneys should be rotated among agencies more frequently so that they develop a broader understanding of regulatory (substantive) as contrasted to administrative (procedural) law, and of strategies for increasing regulatory effectiveness.

Recommendation 18: Federal regulators need to meet with one another more than once a year to discuss and analyze strategies for more effective reduction of enforcement deficits and employment of incentives.

11.2 The Design of Incentives

11.2.1 Recognizing the Purpose of Incentives

Recommendation 19: The stated objectives of sanctioning principles and practices in regulatory matters should recognize that compliance can only be ensured when there is consistent and certain application of predictably graduated incentives.

Recommendation 20: Fines assessed in regulatory matters should be used primarily to promote cost internalization. To achieve that goal, fines should accurately reflect the severity of harm a given action generates and the compliance history of the individuals and organizations who created the harm. Fines may also be used to fund restitution and to increase the resources available to reduce enforcement deficits.

Recommendation 21: Incentives used should be effective. If fines are used they must be collected in full to insure that fines promote cost internalization.

Recommendation 22: Equity fines, which tier fines to reflect corporate assets, should be employed to promote cost internalization by risk creators.

Recommendation 23: Fines should not be paid to the consolidated revenue fund but should be held in trust and used to reduce enforcement deficits and to speed action to reduce past harm.

Recommendation 24: Federal regulators should be aware that negotiation of fines undermines consistency in enforcement, reducing the ability of risk creators to calculate the expected returns on investment in prevention and mitigation. If negotiation of fines occurs, federal regulatory agencies should be expected to identify the increased mitigation of harm (US-E-c-2) expected to be realized as a result of negotiation.

Recommendation 25: Payment of fines and fulfilment of obligations to mitigate harm should be audited to reduce the probability of undercontrol.

11.2.2 Controlling the Enforcement Deficit

Recommendation 26: The use of incentives should be monitored by each federal regulatory agency in an effort to identify enforcement deficits. Cutbacks in regulatory manpower increase the probability of enforcement deficits and thus the certainty that incentives will be employed consistently.

Recommendation 27: Enforcement deficits should be controlled because they reduce the incentive to invest in improving compliance by developing increasingly effective internal control systems and technologies.

Recommendation 28: Reasons for decisions should be provided in writing and placed on a public register whenever noncompliance is forgiven (in part or in full) by federal regulatory agencies, and whenever regulators assume that compliance in full is not required. Similarly, reasons should be given and placed on a public register when severe penalties are administered to the powerless.

Recommendation 29: Supervisors in federal regulatory agencies should be required to review systematically reasons for failure to require compliance in order to identify regulators who may be exercising too little control. They should also be required to review reasons for severe penalties assessed against the powerless in order to identify regulators who may be exercising overcontrol.

Recommendation 30: No one should be permitted to raise as a defence in court or in negotiating settlement agreements a history of waiver of compliance. Such a defence promotes underenforcement and interferes with the ability to reduce harm systematically.

Recommendation 31: Providing subsidies to noncompliants and exempting small firms from the need to comply reduces the incentive to comply and increases the risk

borne by some risk bearers relative to others. Furthermore, such action threatens efforts to promote cost internalization. If firms or governments cannot attract enough resources to cover compliance with existing and escalating regulatory standards, they are undercapitalized. Enforcement deficits should not be permitted simply because of undercapitalization.

Recommendation 32: Disclosure of regulatory obligations and undertakings should be required as part of statutory company law and all other financial reporting systems over which the federal government has control (see US-E-a-21).

11.2.3 Creating A Hierarchy of Incentives

Recommendation 33: Incentives and penalties to promote compliance should be hierarchically organized and escalate rapidly. The following is one way of conceptualizing such a hierarchy:

- promotion
- advice
- general warnings
- specific warnings
- improvement notices
- negotiation of compliance schedules
- tickets - flat-rate fines
- education: requiring development of diagnostic and design skills
- publicity
- remedial orders (individual compensation)
- assessment of civil damages to individual/organization
- assessment of civil damages to classes of individual/organizations
- escalating fines
- fines calculated on basis of savings made through noncompliance
- negotiation of mitigation agreements
- suspension of administrative privileges
- seizure of equipment, product
- prohibition orders
- injunctions
- destruction of product
- probation/trusteeship for corporation
- delisting - denying access to market
- suspension, limitation, revocation of license
- jailing of corporate decisionmakers
- occupational disqualification

Recommendation 34: Tiering of incentives should be based on severity of the risk generated, severity of harm caused and compliance history. Changes in these variables should be reflected rapidly in the incentives available.

Recommendation 35: Parliamentary authorization for administrative penalties and escalating fines should be obtained so that the incentive structure can effectively reflect compliance history. This will ensure that chronic offenders internalize the costs their actions generate and bear an increasing penalty for resisting compliance.

Recommendation 36: Because escalating fines are an incentive not a punishment for a crime, the income they generate should be available to finance provision of other incentives, such as rewards for citizens who report noncompliance that generates severe risk or harm, or be placed in a general fund from which clean-up costs and compensation are paid when the liable party is financially unable to do so.

Recommendation 37: Affected federal departments should investigate the usefulness of delayed administrative noncompliance penalties such as those employed by EPA (US-E-c-6), and provide regulatory agencies with a recommendation regarding their use.

Recommendation 38: Fines for continued noncompliance should escalate rapidly if the fine is expected to alter the behaviour of those creating low and moderate risks.

Recommendation 39: The rate of escalation in fines should be adjusted by federal regulators continuously to reflect the levels needed to justify investment in increasingly effective control technologies and internal control systems.

Recommendation 40: The private sector should be encouraged to expand the incentives it grants and withdraws in response to compliance histories (such as auto insurance rates conditioned upon points and/or convictions). A wide variety of privileges distributed by both public and private sectors should be organized hierarchically and used systematically to increase the incentives for compliance.

Recommendation 41: Federal regulators should meet to consider when enforcement could be undertaken cooperatively, enabling regulators to piggyback on the incentives available to other regulators. Parliament should be asked to provide a mandate for joint action where the objectives of two or more regulatory schemes can be better achieved through integrated rather than discrete enforcement.

11.2.4 Compliance Histories

Recommendation 42: Computerized compliance histories should be developed by all federal regulatory agencies and by the provincial regulatory agencies responsible for administering federal regulations.

Recommendation 43: Computerized compliance histories should record the role the regulator played, instruments and incentives employed, and outcomes achieved for each contact between risk creator and regulator. They should also include all sources of noncompliance identified in self-audits, promises to undertake action to eliminate noncompliance and mitigate harm which resulted, and certification of performance in full.

Recommendation 44: Compliance histories should include all instances in which noncompliance was forgiven by Cabinet, Ministers, regulators, prosecutors or courts and the reasons therefor.

Recommendation 45: When Cabinet or Ministers forgive noncompliance they should provide reasons so that their decision can be appealed.

Recommendation 46: All information in the compliance history should be treated as nonconfidential and admissible as evidence (i.e., as a matter of public record) at the trial stage.

Recommendation 47: The data created by computerized compliance histories should be used to increase accountability of regulatory staff to the federal regulatory agency and of federal regulatory agencies to Parliament.

Recommendation 48: The Government of Canada should establish a public registry where compliance histories maintained by federal regulatory agencies would be placed on the public record so that risk bearers have access to the information. A public registry would enable risk creators to check the accuracy of their record and to seek correction if the evidence warranted it. Unlimited access would permit data to be publicized even when a regulatory agency prefers not to employ publicity as a regulatory instrument.

Recommendation 49: Compliance histories should be exchanged among federal and provincial regulatory agencies. A common history format and common designation of risk creators should be used by all government agencies. If technically feasible, compliance histories developed by different agencies and governments should be linked.

Recommendation 50: Choice of mitigation strategies should be defined as a privilege available in proportion to the degree to which the compliance history indicates that a given risk creator has the will and the ability to act in a socially responsible manner.

Recommendation 51: Compliance histories should be employed to determine whether risk creators have earned the privilege of having federal regulators employ less intrusive regulatory instruments and incentives. In this way, deregulation becomes a privilege to be earned and removed on the basis of one's compliance history.

Recommendation 52: Compliance histories should be employed to identify individuals and organizations who should be disqualified from applying for or receiving contracts, grants, subsidies or loans from the federal government or federally regulated institutions for a period of not less than six months (See for example US-E-A-3).

11.2.5 Quantum of Risk and Incentives

Recommendation 53 The design of compliance and enforcement measures developed by relevant federal regulators should be based on the premise that when risk is high or consequences are severe, the regulatory strategy and incentive system needed is different than when risk and consequences are moderate and low.

Recommendation 54: The design of compliance and enforcement measures developed by the federal regulators should be based on the premise that when risk and consequences are moderate or low, it is the regulator's responsibility to engage in targeted promotion and consistent appplication of incentives to redesign production processes and manage the control and mitigation of harm effectively.

Recommendation 55: Federal regulators should seek the assistance of risk creators and their associations as well as risk bearers in developing effectively targeted promotional activities and in developing incentives which will consistently complement and reinforce those employed by regulators to increase the effectiveness of harm reduction strategies.

Recommendation 56: In industries where risk and consequences are low and moderate, more emphasis on promotion is needed to increase risk creators' knowledge of their legal obligations. Because in such industries, a great deal of noncompliance occurs due to ignorance of legal obligations, penalties in the first instance should not be severe, but severity should escalate rapidly.

Recommendation 57: When risk and consequences are low or moderate, attention to obligations requires the consistent application by federal regulators of adequate incentives to ensure that organizations and individuals pay attention and recognize that their obligations are legally binding.

Recommendation 58: Because lower risk populations lack the knowledge and the motivation to acquire knowledge about harm reduction strategies, federal regulators seeking to change their behaviour should combine intense initial compliance monitoring and targeted promotion programs.

Recommendation 59: When risk and consequences are medium or lower and when harm was not incurred, first and second instances of noncompliance should be

treated as regulatory offences and should be handled by use of an infractions code and a ticketing system.

Recommendation 60: Responses to high-risk activities or those with severe consequences should be clearly differentiated by federal regulatory agencies from responses to moderate and low risk consequences/activities; when risk is high or consequences severe, risk creators must develop diagnostic and design capabilities so that they can adjust rapidly their internal control system. Adopting simple and cheap standardized technologies or procedures provides inadequate protection against harm.

Recommendation 61: The less intrusive approaches to regulation associated with effectively targeted promotion cannot be used when risk is high and consequences are severe. Under such circumstances, an intrusive approach is required since federal regulators need to educate high risk creators to do the thinking rather than to follow rules. Emphasis should be placed on transforming the risk creators' assumptions, priorities and the trade-offs they are prepared to make. In addition, special coaching may be needed, despite the costs, because the severity of the risk requires that the risk creator have the ability to design risk reduction schemes in response to the circumstances.

Recommendation 62: Whenever possible, federal regulators should encourage trade associations and privately or publicly financed consultants to supplement regulatory efforts by providing advice and training to high-risk companies. Such advice and training should be aimed at developing more effective internal control systems and the design capacity required to reduce harm voluntarily.

Recommendation 63: Federal regulators should employ their legal control to increase the probability that advice given by members of the private sector will be heeded and implemented rapidly and effectively.

Recommendation 64: Provision of publicly financed advice and training should only be available when a standardized procedure (see EPA's ABLE system) indicates that a firm or government lacks the ability to provide such expertise. Publicly financed advice on design should be conditional upon achievement of prespecified performance standards; the period of eligibility should be limited. An annual audit of the risk creator's performance should be employed to assess continued eligibility and to encourage steady improvement in performance.

Recommendation 65: Advice and training, whether provided by regulators or publicly financed, should be defined as a privilege to be earned not a right to which all are entitled without regard for their compliance history.

Recommendation 66: Federal regulators should investigate the potential use of certificates of competency for practitioners of high-risk activities. This approach to

regulation might be effectively used in Canada since the potential for occupational disqualification appears to be a powerful incentive which can encourage individuals to keep abreast of regulatory changes and improved technologies for reducing harm.

11.2.6 Accountable Self-regulation

Recommendation 67: The greatest probability of achieving voluntary self-regulation will be found when cost internalization has been effectively promoted through regulation, the design of the incentive system and the case law. When costs have been internalized, the organization is a good candidate for accountable self-regulation particularly if complexity and variability are significant.

Recommendation 68: Federal regulatory agencies should normally treat accountable self-regulation as an expensive privilege, only available to those risk creators with outstanding compliance histories who have invested in acquiring the expertise needed to custom design an increasingly effective harm reduction system, and who have demonstrated the organizational commitment to harm reduction needed to ensure that designs are rapidly implemented.

Recommendation 69: Accountable self-regulation should only be permitted when the risk creator has accepted full civil liability for mitigation of any resulting harm (US-E0b-2).

Recommendation 70: A federal regulatory agency should only employ accountable self-regulation when regulatory resources permit both compliance and effects monitoring, and when the agency has the expertise required to provide the risk creator with valuable suggestions about improving its current approach to harm reduction. This approach is not to be employed as a cost cutting strategy, since it could promote undercontrol and neglect of government's obligations to risk bearers.

Recommendation 71: Federal regulatory agencies should view accountable self-regulation as a source of demonstration programs which can show those with less outstanding compliance histories the feasibility and cost effectiveness of harm reduction initiatives. As a result, the data on costs, savings and effects should be widely disseminated and used to assist in improving existing design and performance standards.

Recommendation 72: Federal regulators should actively seek opportunities to delegate and share the interpretor/translator, teacher and advisor roles with risk creators and their trade associations as well as with private consultants, despite the fact that these are the roles regulators prefer to play. This could involve greater emphasis on programs such as the California Cooperative Compliance Program, and OSHA's Voluntary Protection Program and Consultation Exemption Program, or developing loss control programs (Bardach and Kagan interviews), quality assurance programs (Bardach and

Kagan interviews), private standard setting (Cheit, 1987), and selective use of self-regulatory schemes such as those surveyed by the Australian Trade Practices Commission.

Delegation could involve a listing system to encourage nations exporting to Canada to teach firms about our regulations, to inspect producers to ensure compliance with our regulations and to require export licences which those nations can withdraw in the event of noncompliance. It could also involve organizations which can provide basic knowledge, promotion and expert design advice to those responsible for mitigating harm.

Getting the private sector to assume responsibility for providing/acquiring knowledge of obligations, monitoring compliance, advising on the options available for meeting their obligations, proposing refinements in the definitions of obligations to make them more effective and less costly is more likely to improve the quality of regulation if the public sector carefully monitors the effects to ensure that the quantity of harm and severity of consequences are declining steadily.

Recommendation 73: If the interpretor/translator, teacher and advisor roles are delegated to the private sector, then evaluating the adequacy of proposed strategies for preventing and mitigating harm should be a responsibility jointly undertaken by federal regulatory officials and concerned members of the public. When defining obligations that privately proposed strategies must meet, federal regulators should address public concerns carefully and ensure that undercontrol will not result.

Recommendation 74: If the interpretor/translator, teacher and advisor roles are delegated to the private sector, federal regulatory agencies should monitor harm and ensure speedy implementation of changes designed to ensure rapid mitigation and more effective prevention of harm. Failure to do so will exacerbate conflict, increasing the costliness of the regulatory process.

11.2.7 Effects Monitoring

Recommendation 75: When necessary, federal regulatory agencies should receive additional funding to permit more extensive effects monitoring. The results of such monitoring should be placed on a public registry maintained by line departments or a central agency. These materials could enrich the Annual Reports of federal regulatory agencies substantially.

Recommendation 76: The effects monitoring data from all federal regulatory agencies should be analyzed by an appropriate governmental agency, which would prepare an annual report to an appropriate parliamentary committee. The report should address strategies for improving regulatory effectiveness and focus on both successes and failures in limiting over and undercontrol.

Recommendation 77: Federal regulators should provide assurance that no loss of mitigation or unfavourable redistribution in its allocation will result from regulatory flexibility. Without openness and valid measures of quantum and distribution of mitigation, potential losers will demand tough enforcement of minimal standards and impede the flexibility required to promote the objective of positive compliance. Effects monitoring is thus an essential prerequisite for regulatory flexibility.

Recommendation 78: Federal regulators seeking to increase receptivity to innovation should develop techniques for tracking impacts on harm effectively, so that mitigation will occur rapidly. Developing valid measures is a prerequisite for broad acceptance of innovative technologies, control routines and positive compliance approaches to regulation.

11.3 Harm Reduction Strategies

Recommendation 79: Effective regulation should assign a higher priority to correcting past harm and providing restitution than to extracting a penalty for creating harm to others. However, penalties for harming others convey the importance society attaches to controlling high-risk activities effectively. As well, they are a cost which must be collected if the incentive system is to promote investment in prevention. Failure to impose a penalty commensurate with the harm resulting promotes undercontrol and thus undermines the legitimacy of the regulatory regime.

Recommendation 80: The Department of Justice Canada should identify and inform federal regulatory agencies of a variety of legally enforceable methodologies for defining enforceable undertakings to mitigate harm, and of the advantages and disadvantages of each.

Recommendation 81: Federal regulatory agencies should commit themselves in advance to requiring the elimination of harm that results whenever prevention proves inadequate. Only in this way can the growth of harm be curbed.

Recommendation 82: Through legislation, Parliament should explicitly assign joint and several liability for any harm resulting from inadequacy of prevention, and courts should be explicitly empowered to penetrate the corporate veil so that such liability cannot be avoided.

Recommendation 83: Whenever harm has occurred, performance contracts/settlement agreements should be negotiated by federal regulatory agencies and registered with the court so that they are legally binding (US-E-b-2). Certification of fulfilment of all terms should be mandatory. Requiring federal regulatory agencies to negotiate a mitigation agreement whenever harm has occurred will also increase the

incentive for risk creators to engage in prevention. Agreements so negotiated and certificates of completion should be included in compliance histories.

Recommendation 84: The terms of settlement agreements should be subject to public scrutiny prior to authorization. Regulators should monitor certificates of completion and systematically evaluate the effects of implementation of the agreement. Their data, interpretation and recommendations regarding further action needed should be placed on the public register to be maintained by a federal central agency.

Recommendation 85: The terms of all undertakings, no matter how federal regulatory agencies choose to negotiate them, should be accessible to the public through a public registry so that the public, investors and competitors can participate in their enforcement.

Recommendation 86: Federal regulators should define choice of mitigation strategies as a privilege. The availability of that privilege should vary in proportion to the degree to which past performance shows that a given organization has the will and the ability to act in a socially responsible manner.

Recommendation 87: The design of performance contracts/settlement agreements should be a responsibility of those with expertise and with first-hand knowledge of the technical, managerial/organizational and technological obstacles to full implementation. As a result, design may be a regulatory responsibility, or one assumed jointly or by the private sector alone.

Recommendation 88: Authorization of the design of a performance contract/settlement agreement should be the responsibility of federal regulatory agencies, but broad consultation should occur with risk bearers and experts within risk creating organizations who are aware of the weaknesses and strengths of the internal control system and of any obstacles to its effective reorganization.

Recommendation 89: Federal regulatory agencies should not adopt inspection strategies which reduce the incentive to invest in increasingly effective prevention. OSHA's decision not to inspect firms with better than average safety records for their industry significantly reduced the incentive for such firms to invest in mitigation.

11.4 Achieving a Balance of Control

11.4.1 Public Access and Participation

Recommendation 90: Positive compliance programs should emphasize the following points:

1. public supervision of private action in order to ensure convergence between public and private priorities;

2. the need to give public and private interest full consideration;

3. the diversity of public interests and the inability of government to represent adequately all elements of the public interest;

4. the contribution broad public input can make to adequate forecasts of the consequences of contending methodologies; and

5. joint responsibility on the part of government and public groups for defining, realizing and refining the "public interest."

Recommendation 91: Public participation enables risk bearers to give advice which, if heeded, has the potential to increase the effectiveness of regulatory decisions or to provide alternative sources of expertise for consideration in an adversarial proceeding. It should always be remembered, however, that public participation has considerable potential to exacerbate conflict by identifying diverging assumptions and clarifying the consequences of adopting one set at the expense of another. As well, when advice is given but not heeded outrage, litigation and the repoliticization of the regulatory process are likely to occur.

Recommendation 92: Both risk bearers and risk creators should be encouraged to participate as equals in establishing performance standards, monitoring performance and monitoring effects. To do so, all participants in these processes require unimpeded access to all available regulatory information and to the resources required for assistance in advocacy and design matters. Confidentiality should be very narrowly defined because of the importance to positive compliance programs of access to valid data on harm and its etiology.

Recommendation 93: More emphasis should be placed on ensuring early access to decisionmaking forums and to the information needed to prepare one's own position on the issues or to refute that of others. Interrogatories, cross-examination and the financial resources needed to gain and interpret information should be a matter of right.

Recommendation 94: Public registries such as those used by the Australian Trade Practices Commission play an essential role in reducing the obstacles to gaining access to critical information and should be used more extensively. It is important, however, that effects monitoring data and their interpretation be placed in the registry.

Recommendation 95: Federal regulators should provide concerned public groups with evidence that their position has been heard and understood. The commissioner of inquiry system seems more likely to be viewed as fair than a formal hearing or an appeal

to the minister. This is particularly likely when limits are placed on ministerial discretion, as is the case in South Australia.

Recommendation 96: To ensure that third parties are likely to view the regulatory process as substantively and procedurally fair, the following points should be observed:

1. negotiation of mitigation strategies should be an open process responsive to third party concerns;

2. noncompliance penalties should accurately reflect societal values; and

3. valid evidence of steady progress toward improved mitigation should be provided.

Recommendation 97: To restrict undercontrol, greater opportunities for discovery, cross-examination and focused presentation of competing forecasts (and the underlying assumptions and priorities) should be provided. This will permit risk bearers to criticize negotiated standards and settlement agreements, and increase regulator willingness to design standards and remedies sensitive to risk bearer concerns.

Recommendation 98: Accountability for decisions to forgive noncompliance should be ensured, because lack of accountability is likely to undermine fairness. When noncompliance is forgiven, regulators lose sight of their responsibility to achieve a balance between the priorities of risk creators and risk bearers.

Recommendation 99: The Department of Justice Canada should investigate legal instruments such as private causes of action, class actions, liberalized standing rules, monetary incentives and enforcement injunctions which risk bearers can use to check undercontrol. Available instruments should be publicized so that if enforcement of an undertaking proves inadequate, citizens are able to take concrete action to compel enforcement rather than merely voicing outrage and politicizing the regulatory process.

11.4.2 Departmental Legal Services

Recommendation 100: Justice Department lawyers seconded to regulatory agencies should participate in drafting and redrafting statutes and regulations as well as in prosecuting cases and responding to challenges to regulatory authority. Through such participation, the lawyer not only provides needed expertise, but also clearly defines the regulatory agency as the client to be served.

Recommendation 101: The Annual Conference on Administrative Law should place less emphasis on administrative law and more emphasis on regulatory law. The conference should meet more frequently and should seek out resource people who can

stimulate discussion of regulatory instruments and encourage exchange based on comparative experience. The purpose of these meetings would be to promote exchange of new regulatory strategies, the giving of advice and identification of changes in patterning of legal work in regulatory agencies and in risk creator and risk bearer behaviour which should be more broadly addressed.

11.4.3 Evaluation of Existing Practices

Recommendation 102: The Department of Justice Canada should encourage the Office of the Comptroller General to conduct regular evaluations of the effectiveness of specific federal regulatory programs in meeting legislative objectives. Such evaluations could identify appropriate changes in legislative mandates and suggest changes in management practices and budgetary priorities.[198]

Recommendation 103: Parliament should fund systematic, periodic, objective, external evaluations of each federal regulatory agency. Criteria for evaluation should be proposed by the major risk bearers affected by agency policy.[199]

Recommendation 104: The Department of Justice Canada should fund a study of the procedures used by federal and provincial regulatory agencies to delegate regulatory roles to the private sector, and whether the private sector supplements or replaces regulators in performing such roles. The performance standards employed, the frequency and forms of auditing used and the consequences for risk bearer involvement should be assessed.

Recommendation 105: To improve the effectiveness of the Annual Conference on Administrative Law, funding should be provided to provide consultants' reports on more effective strategies to be employed by federal and provincial regulatory agencies which are responsible for enforcement of federal regulation to limit enforcement deficits.

Recommendation 106: Funding should be provided for a study of alternative strategies for achieving regulatory responsiveness to the priorities of both risk creators and risk bearers.

Recommendation 107: Funding should be provided for research on alternative strategies for channelling outrage with regulatory processes, so that the hearing processes preferred by risk bearers can be better understood.

Recommendation 108: A special task force should address the question of how federal regulatory processes could be restructured so that they more effectively dissipate outrage in regulatory matters. This task force should specifically address the following questions:

1. What changes might be able to permit parties to better influence the results?
2. How can procedural and substantive fairness be increased?
3. How can delays and legal costs be reduced?

12.0 ENDNOTES

[1] Braithwaite, 1985.

[2] Bardach and Kagan, 1982a.

[3] See Armour, 1987: 16-17.

[4] Vogel, Reiss, Kagan, 1987; Braithwaite, 1987.

[5] Black, 1976: 4.

[6] Hawkins: 4.

[7] Hawkins: 6.

[8] The literature disagrees on the questions of whether the exercise of penal control reinforces or undermines positive compliance, and whether concern with non-compliance penalties detracts from the goal of harm reduction.

[9] See also Baldwin, 1987.

[10] See Barnett, 1987.

[11] Regulatory Reform Strategy. Canada: Privy Council Office, 1986.

[12] Mitnick, 1980: 274-8.

[13] Bardach and Kagan, 1982a: 131.

[14] Bardach and Kagan's interview data with safety professionals and Cal-OSHA regulators assigned to large oil companies indicate how much more difficult it is to achieve accurate data on emissions when adversarial relations exist between companies and regulators.

[15] In describing the history of two large construction firms, both of which eventually participated in California's Cooperative Compliance program, Rees (1986a) notes that voluntary compliance, which was encouraged by company manuals when OSHA's legislation was first adopted, declined as a result of regulatory overcontrol. Cooperative relations were replaced by adversarial relations as the companies organized to contest citations. Given the probability of success, contesting citations became a more effective strategy for companies than was investment in safety.

[16] The history of OSHA is particularly fascinating because of the insight it provides into these processes; see Chapter 7.

[17] See Note 12, above.

[18] Liroff, 1986: 99.

[19] United States: Environmental Protection Agency, 1986b.

[20] Rees, 1986a.

[21] Bardach and Kagan, 1982a: 131.

[22] Rees, 1986a; Bardach and Kagan (1982a: 131) also found that "legalization of regulation increases the inspector's ability to elicit cooperation, provided he uses those powers to that end".

[23] Baldwin, 1987; Genn, 1987 and Rees, 1986a.

[24] Rees, 1986a.

[25] This privilege is employed by the South Australia Department of Marines and Harbours to considerable effect.

[26] See Fisse and Braithwaite, 1983.

[27] Hawkins, 1987.

[28] Brown and Rankin, 1988.

[29] United States: Environmental Protection Agency, 1984a.

[30] United States: Environmental Protection Agency, 1984b; 1986c.

[31] United States: Environmental Protection Agency, 1986b.

[32] See Chapter 7, in particular the subsection on cleaning up hazardous waste.

[33] Mitnick, 1980: 274-8.

[34] Genn, 1987; Baldwin, 1987.

[35] Rees, 1986a; Gray and Jones, 1987; Bardach and Kagan, 1982a; Scholz, 1984a; 1984b; 1987.

[36] Braithwaite and Grabosky, 1985; Braithwaite, 1985.

[37] Genn, 1987.

[38] Rees, 1986a.

[39] Rees' chapter on the designated compliance officer provides excellent material on the advice giving and legitimizing roles regulators play when accountable self-regulation is employed; ibid., ch.6.

[40] Bardach and Kagan, Interview Materials, California Safety and Occupational Health Administration. American Regulatory Agencies, microfiche 1-14, Toronto: Micromedia Limited, 1988.

[41] Genn, 1987.

[42] Genn, 1987.

[43] Scholz, 1987: 19-20.

[44] Rees, 1986a. These findings would confirm Scholz' work.

[45] Genn, 1987.

[46] Rees, 1986a.

[47] Genn, 1986.

[48] Baldwin, 1987.

[49] Baldwin, 1987.

[50] Baldwin (1987) suggests when a particular enforcement strategy should be employed.

[51] Gray and Jones, 1987: 21.

[52] Scholz, 1984b: 398.

[53] Waverman, 1982.

[54] See in particular the authorization process of the Australian Trade Practices Commission and the process through which the Australian Industries Assistance Commission develops its recommendations to the Minister of Industry, Technology and Commerce, Chapter 2 above, and Chapter 8.

[55] Reich, 1964.

[56] Perrow, 1970: 76.

[57] Grabowsky and Braithwaite, 1986: 117.

[58] Ibid.: 122.

[59] Marcus, 1986.

[60] Abegglen and Stalk, 1985: 167.

[61] See Abegglen and Stalk's (1985) analysis of the relations between Kaisha and Japanese financial institutions, and the contrast with relations between American firms and financial institutions, p.167.

[62] Reich, 1983: ch.4, and Mintzberg, 1979: ch.18.

[63] Kast and Rosenzweig, 1987; Mintzberg, 1979: ch. 21.

[64] Grabosky and Braithwaite, 1986: 82.

[65] Penguilly; Baar, 1986b.

[66] Grabosky and Braithwaite, 1986: 81.

[67] Ibid.: 82.

[68] Ibid.

[69] Ibid: 83.

[70] Baar, 1986b.

[71] Goeller: 36.

[72] Baldwin, 1987: 38.

[73] Hawkins, 1983.

[74] The British have stressed the need to limit the degree of social distance if the regulator is to be heeded by the risk creator. See the comments on "elite accommodation" above.

[75] United States: General Accounting Office, 1983a.

[76] The author gratefully acknowledges the information on this topic received during her interview with John Skinner.

[77] United States Comptroller General, Feb.1985.

[78] Ibid.: 65.

[79] Interview with Richard May.

[80] United States: General Accounting Office, 1983.

[81] The GAO also found similar problems of nonreporting: 8 per cent of firms did not report at all, and 37 per cent of the reports submitted were incomplete.

[82] Selmi, 1985.

[83] Solomon and Nowak, 1980.

[84] Interview with Wallace Witkowski, Federal Trade Commission.

[85] Burrough and Lubove, 1986: 1.

[86] Interview with Richard Kozlowski, Mobile Source Program, EPA.

[87] Braithwaite, 1985.

[88] C. Reich, 1964.

[89] Fairbairn and Prabhu, 1988.

[90] Mitnick, 1980: 274-8.

[91] Administrative Conference of the United States, 1987.

[92] Schoenbrod, 1983a: 1469.

[93] United States: Environmental Protection Agency, 1987a. Resistance has also been encountered from lawyers, "because they are afraid of losing control. They believe that if they control negotiations, they control the case." (Interview with Richard May, formerly Legal Counsel at EPA.)

[94] Cheit, 1987: 10-12.

[95] For comprehensive discussions of the alternative dispute resolution process, see Merry and Silbey, 1987; Buckle and Buckle, 1986; and Schoenbrod, 1983a: 1458.

[96] Yale Law Journal, 1978: 407.

[97] Thus, for example, the British *Consumer Credit Act* bears the reference UK-X-a-2. The first letters indicate the country of origin of the regulatory instrument or program, the second the area of regulation ("E" stands for "environmental," "O" for "Occupational Health and Safety", while "X" denotes miscellaneous areas); the third letter represents a

subgrouping, and the numeral the position of the profile within the group. The inventory codes are set out in detail at the beginning of Volume 2.

[98] Hawkins, 1984: ch 1.

[99] Ibid.: 4-5.

[100] Genn, 1987.

[101] Baldwin, 1987.

[102] Genn, 1987; Baldwin, 1987.

[103] Baldwin, 1987.

[104] Genn, 1987: 18.

[105] Ibid.: 19.

[106] *The Economist*, in its December 1980 issue, took note of this development: "Tougher government regulations on workers' health have, unexpectedly, given the [U.S.] industry a leg up. Tighter dust control rules for cotton plants caused firms to throw out tonnes of old inefficient machinery and to replace it with the latest available from the world's leading textile machinery firms." Quoted in the United States Office of Technology Assessment, p. 88.

[107] Ibid.

[108] Grabosky and Braithwaite, 1986: 37.

[109] Baar, 1986b.

[110] See Chapter 8, which outlines this curious American approach to environmental "protection." It permits polluters who are active on several sites to treat these as one, as if all were situated together under a giant tennis bubble of shared air space (hence the reference to "the bubble" approach); emission standards are then averaged out between sites, in effect allowing polluters to trade off "credits" for staying under a given standard against violations.

[111] Richardson et al., 1982.

[112] Interviews with R. Robinson, Director of Enforcement Policy, EPA, and J. Skinner, Engineering Research, EPA.

[113] Rees, 1986: ch 5; see also the following chapter for a more detailed study.

[114] See also Genn, 1987: 4.

[115] Baldwin, 1987a: 25-26.

[116] Baldwin, 1987b: 137.

[117] Genn, 1987: 9-10.

[118] Ibid.: 27.

[119] Genn, 1987: 39-53.

[120] Baldwin, 1987a: 32.

[121] Ibid.: 36.

[122] Ibid.: 42.

[123] Baldwin, 1987b: 151-153.

[124] Baldwin, 1987a: 41.

[125] Ibid: 154.

[126] Rees, 1986: ch. 5.

[127] McCrudden, 1987: 231; Dickens: 109-116.

[128] Baar, 1986b.

[129] Rees, 1986: 193.

[130] Ibid: 193.

[131] Ibid: 196.

[132] Companies required project safety supervisors and project superintendents to conduct a weekly walk around. On the basis of the walk-around, the project supervisor was required to submit a one page report identifying hazards discovered and actions taken to correct them.

[133] Rees, 1986: 264.

[134] Ibid: 155.

[135] Ibid: 170.

[136] Ibid: 255.

[137] Ibid: 154.

[138] See also the reference to the Federal Register, October 1985, in the Appendix.

[139] Marcus, 1986.

[140] See also Clean Sites Inc., 1986; 1987.

[141] Clean Sites Inc., 1986: 22-23.

[142] Since the settlement is judicially lodged, potential opposition by citizens dissatisfied with the remedy or its implementation must also be anticipated. See Berman: 14.

[143] General Accounting Office 86-123: 14.

[144] General Accounting Office 86-123: 19.

[145] United States: Environmental Protection Agency, 1987b.

[146] United States: Environmental Protection Agency, 1987a.

[147] Berman: 15.

[148] This example emphasizes most clearly two roles that may not complement each other, but which regulators employing permit systems play. The first role involves educating parties about their obligations and effective ways of meeting those obligations; the emphasis here is on targeting information, and emphasizing what is feasible given the risk creator's particular circumstances and the concerns of relevant risk bearers. The second role involves auditing a proposed plan of action - assessing the probability of compliance and that the methodologies selected will achieve the harm reduction forecast. The purpose of the audit is twofold. On the one hand, it addresses ways the proposal could be improved, while on the other hand, it assesses whether the proposed action will achieve the performance standards which permit holders must meet in order to warrant public sector authorization of the proposed course of action.

[149] One interview subject stated that "If we had to depend solely on legal authority, then we could use clerks to do the job. ... [I]n the United States ... the mines inspector is really no more than a clerk who walks around with a book of rules under his hand and a citation book in the other hand and writes out citations. ... Now that's a totally unprofessional attitude... ." Grabosky and Braithwaite interview, Queensland Department of Mines: 5-7.

[150] Grabosky and Braithwaite interview, Western Australian Department of Mines: 42-3.

[151] Grabosky and Braithwaite interview, Queensland Department of Mines: 36.

[152] Grabosky and Braithwaite interview, Queensland Department of Mines: 33.

[153] Grabosky and Braithwaite interview, Victoria Mines and Energy: 5-6.

[154] Ibid.

[155] Grabosky and Braithwaite interview, Northern Territory Department of Mines: 7.

[156] Grabosky and Braithwaite interview, Northern Territory Department of Mines: 3.

[157] Perrow, 1970: 73.

[158] Ibid.

[159] Conversely, the authorization process of the Australian Trade Practices Commission exempts specific parties from the legal obligations imposed on other members of the class because of the public benefits to be realized through and exemption.

[160] See Note 108.

[161] It is as yet unclear if the 1990 amendments to the *Clean Air Act* introduced by the Bush administration will have any effects on netting or state permits. The most recent policy statements on the subject matter include the Emissions Balancing Policy, January 7, 1988 (53 Federal Regulations 480), the NSPS Bubble Policy, August 4, 1987 (52 Federal Regulations 28946) and the Final Emissions Trading Policy, December 4, 1986 (51 Federal Regulations 43814).

[162] Liroff, 1986: 62.

[163] Ibid.: xvii.

[164] Ibid.: 67-69.

[165] See also Galligan, "Agreements with the Queensland Government," publication forthcoming. The majority of the factual data following in this section are based on information provided by this study.

[166] The Act itself is reproduced in Volume Three of this study.

[167] Galligan (forthcoming): 27.

[168] Ibid.: 21.

[169] Brownlie, 1988: 2.

[170] Corrigan, 1988.

[171] Andrew, 1988: 1.

[172] Grabosky and Braithwaite interview, Department of Primary Industry.

[173] One of the interviews conducted by Grabosky and Braithwaite in the Department of Primary Industry sums up the effects these concerns have on the industry:

> Through our Industry Advisory Groups and through the inspection policy council which is an administratively appointed council, we are continually talking to industry about compliance malpractice problems, security requirements. We are continually trying to impress a very short sighted industry which cannot see beyond a week more or less to the effect of doing something in a year's time.

[174] The Department of Primary Industry recently appointed a Mr. Jenkins to review the program and make suggestions for its improvement. Because of the emphasis on monitoring by internal and external sources, ongoing improvement in the internal control systems of producers is likely to be commanded.

[175] Goffman, 1962.

[176] Grabosky and Braithwaite interview, South Australian Consumer Affairs: 1.

[177] McGillis, 1986.

[178] Grabosky and Braithwaite interview, South Australian Consumer Affairs.

[179] McGillis, 1987: 70.

[180] Grabosky and Braithwaite interview, Victoria Consumer Affairs: 2.

[181] See also the discussion on assurances of voluntary compliance in the section headed "A Cornucopia of Techniques" in Chapter 6.

[182] See also Baar, 1986b.

[183] Penguilly: 214.

[184] Spier: 14.

[185] Rhodes, 1982: 229.

[186] Summary taken from Fisher: 150-151.

[187] Gilpin, 1985.

[188] Author's interview with Alan Gilpin, Sydney, Australia, July 17, 1986.

[189] The concept of joint and several liability itself is addressed in greater detail below.

[190] Paulus, 1974.

[191] Grabosky and Braithwaite, 1986.

[192] Baar and Baar, 1986.

[193] In a telephone interview with an EPA official the author was told that as a result of such negotiations Exxon now reports more violations to EPA than vice versa. The interviewee also pointed out that corporate cost cutting resulted in disinvestment in internal monitoring, but when a sizeable bill was presented as a result of aggregated penalties, reinvestment occurred.

[194] Bardach and Kagan, 1982a.

[195] Stenning and Shearing, 1988.

[196] Kagan and Scholz, 1984.

[197] Even the Australian Trade Practices Commission under McComas, a strong advocate of substituting self-regulation for government regulation, has been required to recognize the limited potential of this approach: Trade Practices Commission (1988), vol. 1.

[198] The United States General Accounting Office currently conducts evaluations of this kind.

[199] Such studies might be similar to Gibson and Savan 1986, an assessment conducted by the Canadian Environmental Law Research Foundation.

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APPENDIX I

GLOSSARY

accountable self-regulation: actions to control harm undertaken voluntarily by risk creators; consistent performance is promoted by regulatory audit.

alternative dispute resolution: use of a neutral third party to resolve disputes through a process which is less formal, structured, legalistic and expensive than a court hearing.

arbitration: a voluntary and binding (i.e., the decision is not subject to appeal) process of dispute resolution. The parties can establish the rules, which usually do not require the neutral arbitrator to provide reasons for his or her decision. The process attempts to balance consistency and predictability against concern for the disputants' relationship.

capture: the creation of false fiduciaries which occurs because the ties between regulators and risk creators are stronger than the ties between regulators and risk bearers.

clout: the ability to pursue one's objectives effectively in negotiations because of the incentives one can provide.

compliance monitoring: assessment of the effectiveness of regulatory strategies for promoting the consistent exercise of due diligence.

command and control regulation: use of design standards and extensive compliance monitoring to achieve reduction in harm.

concertation: the convergence of priorities of various parties which permits the development of consensus about which trade-offs are acceptable and unacceptable.

conditional approval process: granting of approvals in stages so that subsequent approvals depend on the outcome of performance audits.

consents: schedules for achieving compliance with performance standards.

contingent rules: rules which are only applicable under specified conditions.

contract model: use of written agreements to specify the obligations of parties to one another and the remedies agreed to should one or both fail to perform as promised. Enforcement occurs through private civil suit.

control technology: machinery and procedures employed to systematically reduce the probability that harm will be created.

controlling type 1 error: preventing false positives (q.v.) by establishing rules of evidence designed to prevent acceptance as true of something which is in fact false.

controlling type 2 error: preventing false negatives (q.v.) by establishing rules of evidence designed to prevent acceptance as false of something which is in fact true.

coupling: the ties linking one party to another.

deterrence: preventing harm by publicizing the treatment one will receive if one fails to comply with design or performance standards.

decoupling: loosening of the ties linking parties to one another; reduces sensitivity to the other party's reactions to proposed and established courses of action.

design standards: specification of procedures and/or technologies required to adopt in order to reduce the quantum of harm or alter the way in which harm is distributed.

diagnostic regulation: assigns the regulator responsibility for diagnosing the obstacles to effective harm reduction and consistent compliance and designing strategies for eliminating the obstacles identified.

due diligence: definition of the minimal degree of preventive and remedial action required to achieve the desired reduction in the quantum and distribution of harm.

dynamic regulation: regulation which is responsive to changing contingencies and the need to constantly improve design and performance standards.

effects monitoring: assessment of the effectiveness of regulatory strategies for reducing harm.

entropy: deterioration in the effectiveness of existing routines for controlling harm.

experience rating: a system of establishing Workers' Compensation insurance premiums based on the employer's record or experience concerning injuries and illnesses.

false fiduciary: a regulator delegated responsibility for achieving ongoing reduction in the harm borne by risk bearers who subordinates the interests of risk bearers to his own and/or those of risk creators.

false negatives: accepting information indicating that harm does not exist when in fact it does.

false positives: accepting as true information that harm does exist when in fact it does not.

file hearing: an evaluation of evidence relying on written rather than oral submissions.

flat rate fine: a penalty imposed without regard for ability to pay or one's compliance record.

forebearance: a decision not to require regulatory compliance because the harm resulting from noncompliance will be minimal.

forgiveable noncompliance: a decision not to require regulatory compliance even though the harm resulting will be substantial.

formal hearing: presentation of evidence on a regulatory matter by lawyers employing cross-examination, including a prohibition against consideration of second-hand information (hearsay).

generic hearing: gathering of evidence about the need for new or refined regulatory policies and the merits and demerits of proposed changes through oral submissions; occurs independently of consideration of individual cases.

improvement notice: a letter sent by a regulator specifying the improvements needed to bring practices and procedures into compliance with the regulations. Often specifies the date by which improvements are to be completed.

incentive: an inducement to take or refrain from taking a given action.

internal control system: the way risk creators organize their actions to ensure that the outcome is predictable.

interdependencies: the way in which the behaviour of individuals or organizations feeds back on or affects the costs and benefits experienced by specific others and by future generations.

least-cost standards: design or performance standards which place more emphasis on minimizing costs of compliance than on maximizing the effectiveness of harm reduction.

mediation: a voluntary nonbinding, informal approach to finding a mutually acceptable agreement which can form the basis for a contract between the parties.

mitigation: reduction in the quantum of harm which is achieved by remedying/removing existing sources of harm. Often requires redesign or restructuring of relationships so that the reduction becomes long-term rather than temporary.

moral mandate: the strength of a society's commitment to reducing a given form of harm.

negative entropy: the need to obtain new resources and/or redesign routines for controlling harm in order to maintain a given level of protection against harm.

negotiated undertakings: commitments to prevent or mitigate harm agreed to in advance of the creation of the harm or after the harm has been discovered.

noncompliance: failure to perform as prescribed.

overcontrol: rules which must be employed despite their inappropriateness because regulators have too little discretion and flexibility.

penal control: use of punishment to deter specific forms of conduct.

performance standards: specify the quantum of harm reduction to be achieved within a given period of time. Methodology for achieving harm reduction is not specified.

positive compliance programs: programs which effectively use incentives and auditing of behaviour to (l) improve prevention of harm, (2) reduce existing harm and prevent its recurrence, and (3) generate ongoing investment in refining internal control systems, prevention and mitigation strategies and technologies.

post-audit: system of checking which involves after-the-fact monitoring of compliance and evaluation of performance.

pre-audit: oversight of a program based on consequences forecast which occurs before permission or approval to act is granted.

privatization: reduction in the quantum of the public sector's ownership and management rights undertaken in favour of the private sector.

prospective remedies: defining in advance of its creation how harm which is not adequately prevented will be mitigated.

pure fiduciary: a regulator who exercises responsibility for reducing harm by employing the most effective techniques available for gaining reliable and ongoing reduction in the harm borne by risk bearers.

redress order: a court order mandating a risk creator to provide compensation for harm incurred by a risk bearer. Within the United States, the redress provided is partially tax exempt (in contrast to a civil penalty).

regulatory accountability: responsibility of regulators to the legislative and executive branches of government and to risk bearers for reducing the harm which prompted regulation.

retrospective remedies: design, after the harm has occurred, of a strategy for mitigating that harm and preventing its recurrence.

risk bearers: all those exposed to potential harm as a result of decisions or of the activities in which others choose to engage.

risk creators: those individuals and firms who choose to undertake activities which are potentially harmful to others.

suasion: exhortation to change behaviour.

targeting: adapting regulatory messages and instructions to the language, operational procedures and experiences of a given industry.

tiering: moving from case-by-case analysis to the consistent application of contingent rules.

tight coupling: sensitivity to another party's evaluations of existing and proposed courses of action as a result of close ties between oneself and that other party.

undercontrol: rules which are inconsistently employed and when broken are not enforced as a result of too much regulatory flexibility and too much discretion for individual regulators.

upskilling: improving the quality of work (job security, pay, challenge provided by the tasks involved, skill and discretion required) performed by those occupying a given job.

voluntary compliance programs: consistent use by a risk creator of an effective internal control system, one permitting definitions of due diligence to be consistently met or exceeded.

APPENDIX II

FREQUENTLY USED ACRONYMS AND ABBREVIATIONS

ADR	alternative dispute resolution
AFL	American Federation of Labor
AGSMS	Australian government-supervised Muslim slaughter system
AMLC	Australian Meat and Livestock Corporation
AQIS	Australian Quarantine and Inspection Service
Cal-OSHA	California Occupational Health and Safety Association
CCP	California Cooperative Compliance Program
CIO	Congress of Industrial Organizations (U.S.)
CSI	Clean Sites Inc. (U.S.)
DCO	designated compliance officer
EIS	Export Inspection Service (Aus.)
EMR	experience modification rate
EPA	Environmental Protection Agency (U.S.)
FTC	Federal Trade Commission (U.S.)
GAO	General Accounting Office (U.S.)
HSC	Health and Safety Commission (U.K.)
HSE	Health and Safety Executive (U.K.)
IAC	Industries Assistance Commission (Aus.)
NTB	non-tariff barrier
OSHA	Occupational Health and Safety Association (U.S.)
PRP	potentially responsible party
SEC	Securities and Exchange Commission (U.S.)
USDA	United States Department of Agriculture

APPENDIX III

INTERVIEW MATERIALS

Bardach, Eugene and Robert Kagan
1988 American Regulatory Agencies, Toronto: Micromedia Limited, microfiche 1-14.

Fire and Housing Codes in Oakland California
Loss Control Programs
Cooperative Regulation: the California Highway Patrol's MCSU Program
California Occupational Safety and Health Administration
The Bay Area Pollution Control District
Quality Control Conference
Alameda County Fraud Division
Case Study of a High Risk Large Company with In-house Safety Professionals
Milk and Dairy Regulation
Meat and Poultry Inspection
California Department of Health, Food and Drug Section

Grabosky, Peter and John Braithwaite
1988 Australian Regulatory Agencies, Toronto: Micromedia Limited, microfiche 1-29.

Department of Primary Industry
New South Wales Consumer Affairs
Northern Territory Mines
Queensland Consumer Affairs
Queensland Mines
South Australia Consumer Affairs
Tasmania Consumer Affairs
Tasmania Mines
Victoria Consumer Affairs
Victoria Minerals and Energy
Western Australia Mines
Commonwealth Transport: Oil Spills
New South Wales Anti-Discrimination Board
South Australia Departmen tof Marines and Harbours
Western Australia Department of Harbours and Marine
New South Wales Maritime Services Board

Grabosky, Peter and John Braithwaite (continued)

Australian Broadcasting Tribunal
Victoria Commissioner for Equal Opportunity
South Australia Equal Opportunity
Human Rights
Reserve Bank
Prices Surveillance Commission
South Australia Corporate Affairs
Tasmania Corporate Affairs
Corporate Affairs Commission New South Wales
ACT Corporate Affairs
Victoria Corporate Affairs
Customs Service
South Australia Fisheries
Western Australia Environment and Conservation
Western Australia Fisheries and Wildlife
South Australia Water Engineering and Water Supply
South Australia Department of Environment and Planning
Aviation Flight Standards Division
New South Wales State Pollution Control Commission
Northern Territory Water Division
New South Wales Radiation Services
Commonwealth Marine Safety
ACT Environment
National Companies and Securities Commission

APPENDIX IV

LIST OF CONTACTS

UNITED STATES

ALTERNATIVE DISPUTE RESOLUTION

Gene Berman, Vice President Clean Sites Inc. (a nonprofit organization) (703) 683-8522 1199 N Fairfax St., Alexandria, VA.

Use of ADR to resolve joint and several liability issues associated with the Superfund Hazardous Waste Program (EPA). Berman is an attorney and a chemical engineer.

Richard Robinson, Director, Office of Enforcement Policy, EPA, formerly Legal Counsel EPA, 401 M St. SW, Washington, D.C., (202) 382-3125.

Responsible for the development of Guidance on the Use of ADR. Also very knowledgeable on innovative programs for achieving enforcement.

Philip J Harter, 2301 M St. NW, Washington, D.C., (202) 887-1033.

Legal expert on negotiating regulations.

Daniel McGillis, Harvard Law School and ABT Associates, (617) 492-7100.

Specialist in use of ADR in consumer and community dispute resolution.

Madeline Crohn and Mike Lewis, National Institute for Dispute Resolution, 1901 L St. N.W., Washington D.C., (202) 466-4764.

Madeline heads the Institute which funds and conducts research in ADR.

Tom Colossi, American Arbitration Association, 1730 Rhode Island Ave; Washington, D.C., (202) 331-7073.

Expert on training lawyers and others in the use of ADR. Runs workshops for the Department of Justice twice a year, developed workshops for Australia and Malaysia. Involved in training for use of arbitration to establish compensation due under Federal Insecticide Fungicide and Rodenticide Act.

Michael Hollering, American Arbitration Association, New York Office, (212) 484-4000.

Involved in training for use of arbitration to establish compensation due under Federal *Insecticide Fungicide and Rodenticide Act*.

Robert Percival, Environmental Defence Fund, 1616 O St. N.W., Washington D.C., (202) 387-3500.

Gail Bingham, The Conservation Foundation, 1250 24th St. NW, Washington D.C., 20037, (202) 293-4800.

Bingham is an environmental planner who directs the Conservation Foundation's environmental dispute resolution program. She is the author of Resolving Environmental Disputes: a Decade of Experience and is editor of the foundation's newsletter Resolve.

Nancy Firestone, Land and Natural Resources Division, U.S. Department of Justice, 10th and Constitutional Avenue, Washington D.C., 20460, (202) 633-2000.

Worked closely with EPA on development of ADR guidelines.

Jeff Loveman, Research Director, Administrative Conference of the United States, 2120 L St. N.W., Washington D.C., 20460, (202) 254-7020.

COMPLIANCE - FEDERAL TRADE COMMISSION

Bill Sanger, 6th St. and Pennsylvania Ave., Washington D.C., 20460, (202) 326-2996.

"The organizational memory" has 27 years experience with compliance.

Wallace Witkowski, Redress Orders, FTC, 6th St and Pennsylvania Ave., Washington D.C., 20460, (202) 326-3015.

Rose Toufexis, Sunsetting Consent Orders, FTC, 6th St and Pennsylvania Ave. Washington D.C., 20460, (202) 326-30111.

CREATIVE COMPLIANCE, ENVIRONMENTAL PROTECTION AGENCY

Richard May, 1850 K St. N.W., Washington D.C., (202) 862-1100.

Formerly legal counsel at EPA, and previous to that Community Relations, Department of Justice (use of ADR in prison disputes, race relations). He is now a consultant with ICF doing contract work for EPA. Developing innovative approaches to improving enforcement - supplementary monitoring.

John Skinner, Engineering Research, EPA, 401 M St. SW, Washington D.C., 20460, (202) 382-2600.

Computerized monitoring of effluent.

Richard Robinson, Director, Office of Enforcement Policy, EPA, 401 M St. SW, Washington D.C., 20460, (202) 382-3125.

Formerly Legal Counsel EPA, Robinson was responsible for the development of Guidance on the Use of ADR. Also very knowledgeable on innovative programs for achieving enforcement.

Richard Kozlowki, Mobile Source Program, EPA, 401 M St. SW, Washington D.C., 20460, (202) 382-2633.

"ticketing system", reduction of penalties through public education, importance to negotiation for more effective internal control system of consolidating penalties into sizeable packages of at least $1/4 million.

Allen Danzig, Listing Official, EPA, 401 M St. SW, Washington D.C., 20460, (202) 475-8777.

Responsible for mandatory and discretionary delisting under the Discretionary Contractor Listing Program.

Neil Stoloff, Legal Enforcement Policy Branch, EPA, 401 M St. SW, Washington D.C., 20460, (202) 475-8040.

Responsible for inclusion of environmental auditing in settlement agreements.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION: PENALTIES AND VOLUNTARY COMPLIANCE.

Carl Olson, Chemical Manufacturers Association, 2501 M St. N.W., Washington D.C., (202) 887-1275.

Olson is the industry's expert on OSHA regulations.

Roy Gibbs, Office of Health Compliance, OSHA, 200 Constitution Ave. NW, Washington D.C., 20210, (202) 523-8036.

Evaluation of compliance with directive 2.2.

Margaret Richardson, Chief, Division of Voluntary Programs, OSHA, U.S. Department of Labor, 200 Constitution Ave. NW, Room N3700, Washington D.C., 20210, (202) 523-7266.

Richardson is the most knowledgeable person about the Voluntary Protection Program, demonstration programs involving the most successful companies in terms of occupational health and safety in the United States. Expert on organizing health and safety in the construction industry.

George Harris, San Francisco, (415) 557-8618.
Developed California's small employers voluntary compliance program

Maria Wallach, OSHA Regional Office San Francisco, (415) 995-5672.
Responsible for evaluation of firms seeking admission to the Voluntary Protection Program following termination of the California Cooperative Compliance Program.

Mike Getto, Occupational Health and Safety, State of California, San Francisco (415) 557-1946.
Headed cooperative compliance program in California until transferred to OSHA in 1987.

Bob Crum, Safety Advisor, Plastics Division, Mobil Chemical, Pittsburgh, NY, (716) 248-1620.
Mobil Chemical's plants constitute half the sites which have achieved Star level within the Voluntary Protection Program.

Mike Piacentino, Safety Foreman, Mobil Chemical's Woodland California plant, (916) 661-4917.
Expert on operational problems associated with effective safety programs.

Frank Chalmers, Director of Policy, OSHA, 200 Constitution Ave. N.W., Washington D.C., 20210.

John Ruser, Office of Research and Evaluation, Bureau of Labor Statistics, 441 G St., Washington D.C., 20212, (202) 523-1347.
Validity of self-reporting data on occupational injuries.

David Thelen, Project Minerva, Management Education for Safety and Health, 4676 Columbia Parkway, Cincinnati, OH, 45226.

Greg Baxter, Consultation Exemption Program, OSHA, 200 Constitution Ave. N.W., Washington D.C., 20210, (202) 523-8902.
Voluntary compliance for small business, (maximum 150 at any one site or maximum 500 nationally). States provide on-site consultation, customize health and safety program, train and educate.

Joseph Rees, Department of Political Science, Texas A & M University, College Station Texas 77843-4348, (409) 845-2511. California Compliance Program and safety programs in the chemical industry.

John Scholz, Department of Political Science, State University of New York at Stoney Brook, Stoney Brook, Long Island, NY, 11794, (516) 632-7655.

Has undertaken extensive analysis of OSHA enforcement data. As a graduate student worked with Robert Kagan on regulatory unreasonableness.

Carol Adair Jones, School of Natural Resources, University of Michigan, Ann Arbor, MI, 48104, (313) 764-1320.

An economist, her work has centred around asbestos regulation.

Robert Kagan, Department of Political Science, University of California: Berkeley 210 Barrows Hall, Berkeley, CA, 94720.

A lawyer and a sociologist. His study of regulatory unreasonableness focussed primarily on OSHA and the companies affected by OSHA regulations.

Richard Liroff, Conservation Foundation, 1250 24th St. NW, Washington D.C., 20037, (202) 293-4800.

Has written two books on the bubble, the most recent being Reforming Air Pollution Regulation.

OTHER

Dr. Susan Long, Center for Tax Studies, School of Management, Syracuse University, Syracuse NY, 13244, (315) 423-3747.

Expert on tax compliance.

Dr. Susan Shapiro, American Bar Foundation, 750 North Lakeshore Drive, Chicago ILL, 606ll, (312) 988-6593 or Department of Political Science, Northwestern University, (312) 491-3358.

AUSTRALIA:

TRADE PRACTICES AND CONSUMER REGULATION

David Harland, University of Sydney Law School, King and Elizabeth Streets, Sydney, (02) 232 5944.

Formerly part-time member, Trade Practices Commission, active on board of all major consumer organizations in Australia.

Phillipa Smith, Editor of Choice, Magazine of the Consumers Association of Australia, Sydney, (02) 558009.

Dr. John Braithwaite, Department of Law, RSSS, Australian National University, GPO 4, Acton ACT 260l, (062) 49 3289 (office) or (062) 47 9634 (home).

Formerly head, Australian Consumers Association, consumers representative on Economic Planning Advisory Committess, part-time trade practices commissioner. Regulatory researcher.

Judge Noblet, Commercial Tribunal Chambers, 10th Floor, GRE Building, 50 Grenfell Street, Adelaide, South Australia 5000.

Formerly Commissioner for Consumer Affairs in South Australia, Noblet was a strong advocate of use of negative licensing.

C. Neave, Department of Public and Consumer Affairs, 25 Gremfell St. Adelaide, 5000, 011 61 8228 32ll.

Current Commissioner for Consumer Affairs.

Hank Spier, First Assistant Commissioner, Trade Practices Commission, Benjamin Office Building, Benjamin Way and Chan Streets, Belconnen, ACT 2616; (062) 642 924.

Robert Baxt, Chairman of the Trade Practices Commission, Benjamin Office Building, Benjamin Way and Chan Streets, Belconnen, ACT 2616.

Formerly Dean, Law School, Monash University.

Catherine Watts, Regional Director, Trade Practices Commission New South Wales, 3rd floor Mayfair Building, 75 Castereagh St., Sydney NSW 2000, (02) 230 9133.

G. Eva, Regional Director, Trade Practices Commission Victoria, 200 Queen St 12th floor, Melbourne, Victoria 3000, (03) 606 1444.

D. Schulz, Regional Director, Trade Practices Commission Queensland, Watkins Place 6th floor, 288 Edward St., Brisbane, Queensland 4000.

J. O'Dea, Regional Director, Trade Practices Commission Western Australia, East Point Plaza 2nd floor, 233 Adelaide Tower, Perth, Western Australia 6000, (09) 325 3622.

R. D. Williams, Regional Director,Trade Practices Commission South Australia, ANZ House 3rd floor, l3 Grenfall St., Adelaide, South Australia 5000, (08) 213 4242.

G. Pinner, Regional Director, Trade Practices Commission Tasmania, Marine Board Building, Morrison St., Hobart, Tasmania 700l, (002) 34 5145.

Hylda Rolfe, Chair, Prices Surveillance Commission, Sydney, NSW 2000, (02) 27 5677.

P.J. Cronin, Trade Practices Commission, Benjamin Office Building, Benjamin Way and Chan Streets, Belconnen, ACT 2616.

Cronin is responsible for consumer product bans and recalls.

Peter Cashman, Director, Public Interest Advocacy Centre, 245 Castlereagh, Sydney, NSW, 2000, (02) 64 5444.

The centre is funded by the NSW Legal Aid Commission and the NSW Law Foundation Expert on product liability, imprisonment for non-payment of fines and entitlement to benefits.

Jenny David, Law School Sydney University, King and Elizabeth Streets, Sydney, NSW.

Use of mediation in Australia.

Roman Tomasic, Department of Law, Canberra College of Advanced Education, Belconnen, ACT 2616, (062) 52 211.

Neighbourhood justice centres and business regulation.

MINING

G.V. Sandercock, Chief Inspector of Mines, Queensland Department of Mines and Energy, Mining Safety and Technology Branch, Queensland Minerals and Energy Centre, 61 Mary, Brisbane, Queensland 4000, (072) 24 2221 Fax # 011 61 7229 7770

COMMISSIONS OF INQUIRY IN ENVIRONMENTAL AND HERITAGE MATTERS

Dr. Alan Gilpin, 291 George St, 9th floor, Sydney NSW.

Originally British, Gilpin worked for hydro in UK preparing their submissions to Commissions of Inquiry. Has written several books. Controversial. Held major environmental posts in Victoria and Queensland. Now a Commissioner in NSW. John Woodward is another commissioner who can be reached at the same address.

Rosemary Wearing, Sociology Department, LaTrobe University, Bundoora, Victoria 3083.

Has studied the controversy surrounding the subdivision of the Bright Golf and Country Club, Bright, Victoria, Australia. The matter was appealed to the Victoria Planning Appeals Tribunal.

FRANCHISE AGREEMENTS

Dr. Brian Galligan, RSS Political Science, Australian National University, GPO 4, Acton, ACT 2601, (062) 49 3049.

Used by the Queensland government of franchise agreements in large scale resource development projects. Research deals with relations between multinational businesses and the state. Forthcoming book focuses on Utah's relations with Queensland.

Ralph J. Long, BHP Utah International, San Francisco, CA, Fax (415) 398-0154.

Long is a civil engineer recently retired from the company formerly known as Utah Development. He negotiated the franchise agreement with the Queensland government between 1965 and 1968 and then headed the establishment of Utah mines in Queensland until returning to San Francisco in 1973.

Dr. Brian Head, Department of Political Science, Griffiths University, Brisbane, Queensland.

Political economist who analyzed all Australian franchise agreements.

INSPECTION OF MEAT FOR EXPORT

P.J. Corrigan, Senior Assistant Director, Meat Inspection Branch, Australian Quarantine and Inspection Service, Department of Primary Industries and Energy, Jolimont Centre, Northbourne Avenue, Canberra City 2601, Fax (011 61 62) 72 5161.

Familiar with both the Australian Government Supervised Muslim Slaughter System and inspection for the USDA.

A.E. Andrew, Principal Veterinary Officer, Australian Quarantine and Inspection Service, Department of Primary Industries and Energy, Jolimont Centre, Northbourne Avenue, Canberra City 2601, Tel. (062) 45 8211, Fax (011 61 62) 47 4710.

L.E. Brownlie, Chief Manager, Technical Systems, Australian Meat and Livestock Corporation, Aetna Life Tower, Hyde Park Square, Elizabeth and Bathurst St., Sydney NSW 2000, (022) 60 3111. Fax (011 61 22) 67 6620.

OCCUPATIONAL HEALTH AND SAFETY REGULATION

Dr. Peter Grabosky, Australian Institute of Criminology, P.O. Box 28, Woden ACT 2606, (062) 833 833.

Neil Gunningham, Faculty of Law, The Faculties, Australian National University, Acton, ACT 2601, (062) 49 3397; 49 3487.

W.R. (Kit) Carson, Dean of Social Science, LaTrobe University, Bundoora Victoria, 3083.

Has studied occupational health and safety regulation in England and Australia. Most recently concerned about use of prohibition orders in Australia.

AUSTRALIAN BROADCATING TRIBUNAL

Michael Blakeney, Law School, University of New South Wales, Sydney, NSW.

Handled the appeal of the authorization of the Media Council of Australia.

Prof. William Hull, Department of Politics, Brock University, St. Catharines, Ont. L2S 3A1, (416) 688-5550.

Hull's work compares the ABT and the CRTC.

PHARMACEUTICAL REGULATION

Clark Massie, Department of Health, 7th floor Alexander Building, 505 B Furzer Street, Woden ACT, (062) 89 7085.

Clyde Sloan, Pharmaceutical Policy, 7th floor Alexander Building, 505 B Furzer Street, Woden ACT, (062) 89 7281.

Price negotiator for pharmaceuticals listed on PBS.

FOREIGN INVESTMENT REVIEW BOARD

F.G.H. Pooley, Foreign Investment Review Board, Sydney, NSW, (02) 63 3010. Long-term senior staff member.

OTHER

Arie Freiberg, Faculty of Law, Monash University, Clayton, Victoria.

Freiberg has written on the use of positive sanctions.

UNITED KINGDOM:

HEALTH AND SAFETY

Dr. Keith Hawkins, Centre for Socio-Legal Research, Wolfson College, Oxford, OX2 6UD England (0865) 53647.

Hawkins coordinated the five-year study for the Health and Safety Executive and was responsible for looking at how prosecution was organized.

Hazel Genn, Lecturer in Laws, Queen Mary College, University of London, London, England, (0865 52967) (Centre for Socio-Legal Studies).

David Freedman, 11 Exeter Rd., London NW2.

Has interviewed 35 union leaders for a study to be published in the fall of 1988 by the Trade Union Research Unit, Ruskin College, Oxford.

Peter Manning, Department of Sociology, Michigan State University, East Lansing, MI 48823.

Studied the Nuclear Inspectorate in the United Kingdom as part of the Centre for Legal Studies team.

Dr. Robert Baldwin, London School of Economics and Political Science, Houghton Street, Aldwych, London WC2.

Excellent material on rules and co-editor of Regulation and Public Law.

David Gee, consultant, Occupational and Environmental Risk, 24 Broomwood Rd. London SWll 6HT, (0l) 223-0595.

Formerly a safety officer appointed by the General Boilermakers Union.

Robert Coyle, Director of the Health and Safety Division, Trade Union Congress.

Helen Prior, safety representative, National Confederation of Health Service Employees, Slough, Wexon Park Hospital.

Gavin Strang, MP, House of Commons, Westminster, London SW4.

Active in trying to get the Employment Committee to review occupational health and safety. Concerned that funds have been used to raise regulator's salaries rather than to increase numbers of inspectors. Concerned about inadequate qualifications of inspectors, especially nuclear inspectors.